CR-IR346RU Service Manual

Troubleshooting (MT)

CR-IR346RU Service Manual – Contents

Troubleshooting (MT)

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Control Sheet

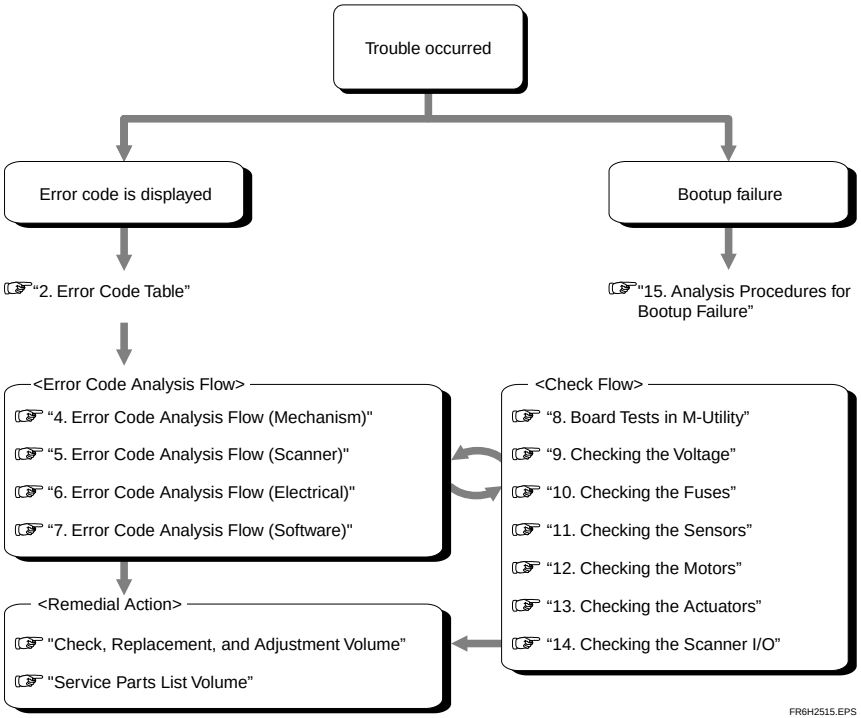
Issue date	Revision number	Reason	Pages affected
10/10/2000	00	New release (FM2887)	All pages
08/30/2001	01	Corrections (FM3058)	All pages

1. Overview of Troubleshooting

1.1 Flow of Troubleshooting

■ Overall Flow

When a trouble occurs, refer to the Troubleshooting Volume along the flow shown below to take remedial action, such as parts replacement, as needed.


Trouble occurred
Error code is displayed
Bootup failure
☞"2. Error Code Table"
☞"15. Analysis Procedures for Bootup Failure"
<Error Code Analysis Flow>
☞ "4. Error Code Analysis Flow (Mechanism)"
☞ "5. Error Code Analysis Flow (Scanner)"
☞ "6. Error Code Analysis Flow (Electrical)"
☞ "7. Error Code Analysis Flow (Software)"
<Check Flow>
☞ "8. Board Tests in M-Utility"
☞ "9. Checking the Voltage"
☞ "10. Checking the Fuses"
☞ "11. Checking the Sensors"
☞ "12. Checking the Motors"
☞ "13. Checking the Actuators"
☞ "14. Checking the Scanner I/O"
<Remedial Action>
☞ "Check, Replacement, and Adjustment Volume"
☞ "Service Parts List Volume"
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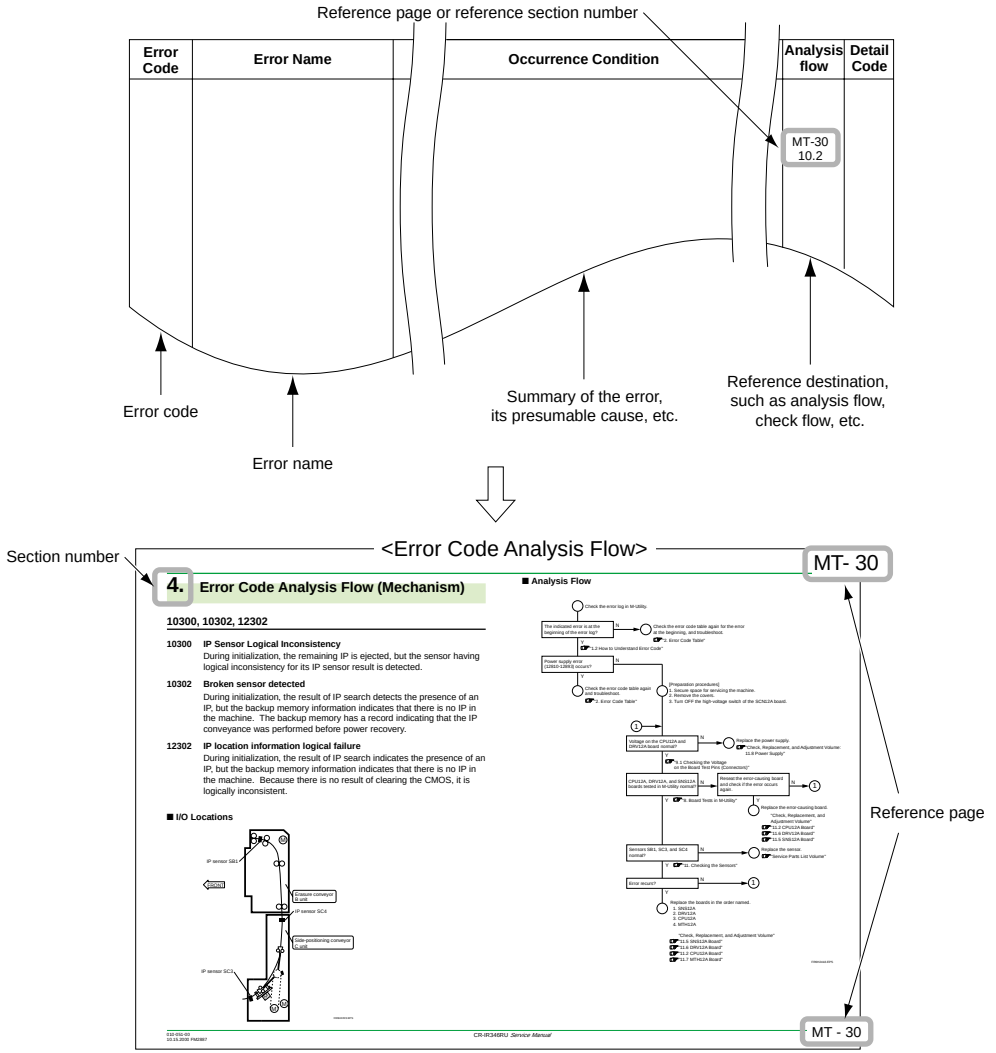
■ How to Use the Analysis Flow

(1) Check the error code.

☞ "1.2 How to Understand Error Log"

(2) Refer to the Error Code Table.

If any reference page is found in the "Error Code Analysis Flow" column of the Error Code Table, proceed to its relevant error code analysis flow.


Reference page or reference section number
Error Code
Error Name
Occurrence Condition
Analysis flow
Detail Code
MT-30
10.2
Error code
Error name
Summary of the error, its presumable cause, etc.
Reference destination, such as analysis flow, check flow, etc.
Section number
<Error Code Analysis Flow>
MT- 30
4. Error Code Analysis Flow (Mechanism)
10300, 10302, 12302
10300 IP Sensor Logical Inconsistency
During initialization, the remaining IP is ejected, but the sensor having logical inconsistency for its IP sensor result is detected.
10302 Broken sensor detected
During initialization, the result of IP search detects the presence of an IP, but the backup memory information indicates that there is no IP in the machine. The backup memory has a record indicating that the IP conveyance was performed before power recovery.
12302 IP location information logical failure
During initialization, the result of IP search indicates the presence of an IP, but the backup memory information indicates that there is no IP in the machine. Because there is no result of clearing the CMOS, it is logically inconsistent.
■ I/O Locations
■ Analysis Flow
Reference page
MT - 30
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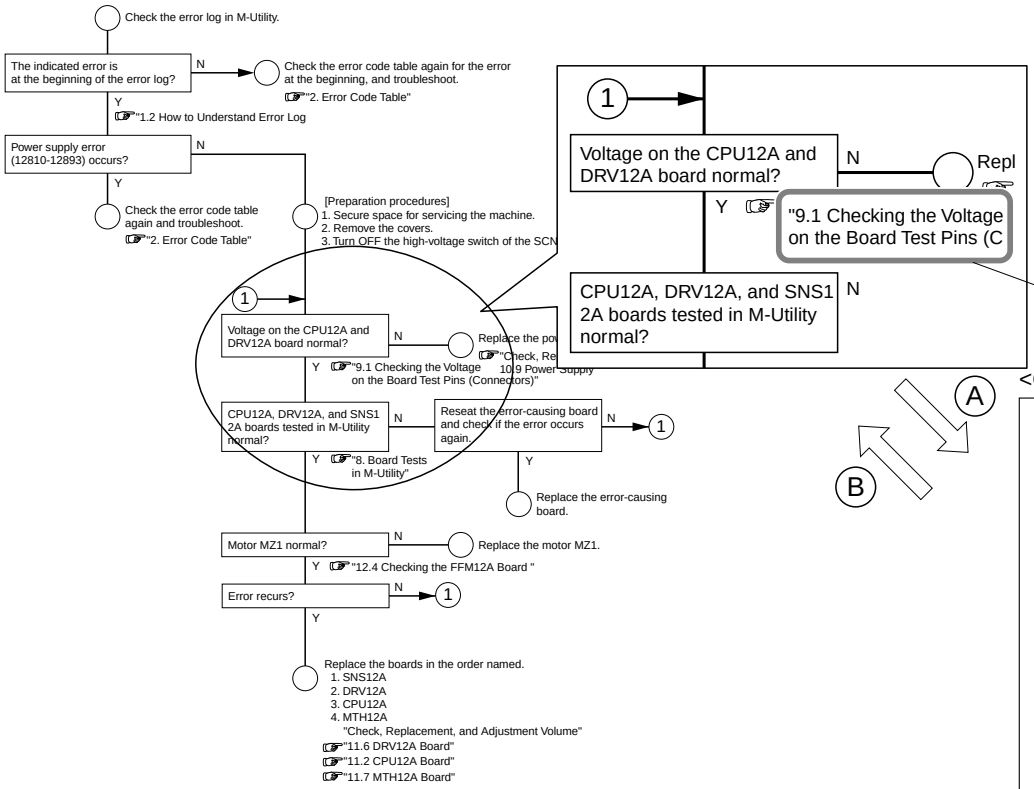
(3) Troubleshoot according to the analysis flow.

◆ ***NOTE*** ◆

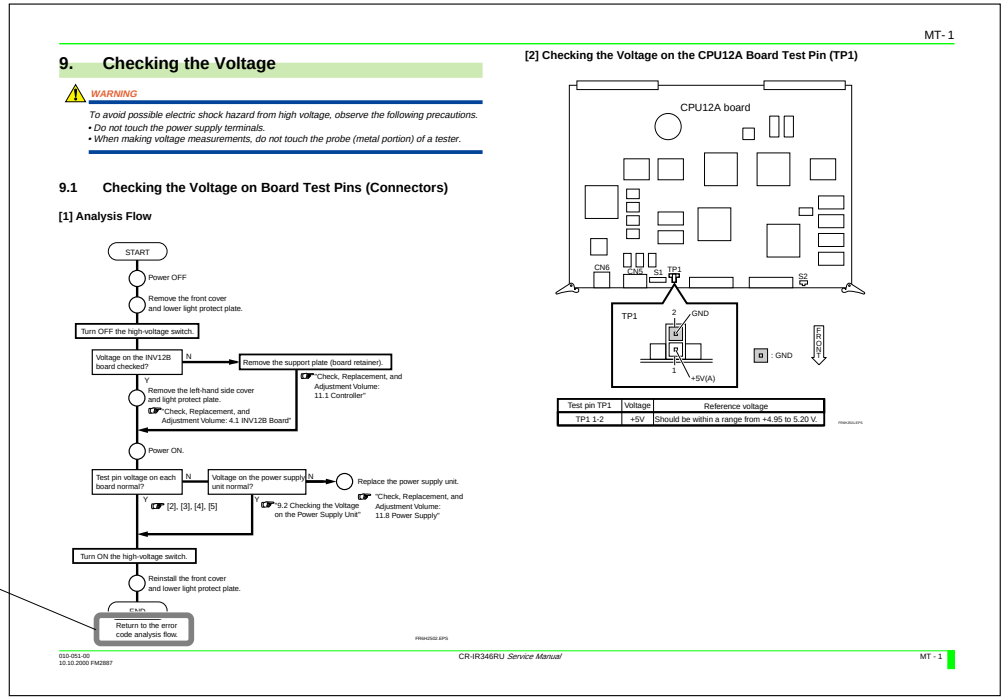
When troubleshooting, refer to the Check Flow that describes the checking procedures for troubleshooting individual I/O parts, as well as "Check, Replacement, and Adjustment Volume."

<Error Code Analysis Flow>



A Proceed to the section number.

<Check Flow>


MT-1
9. Checking the Voltage
WARNING
To avoid possible electric shock hazard from high voltage, observe the following precautions.
• Do not touch the power supply terminals.
• When making voltage measurements, do not touch the probe (metal portion) of a tester.
9.1 Checking the Voltage on Board Test Pins (Connectors)
[1] Analysis Flow
START
Power OFF
Remove the front cover and lower light protect plate.
Turn OFF the high-voltage switch.
Voltage on the INV12B board checked?
N
Remove the support plate (board retainer).
"Check, Replacement, and Adjustment Volume: 11.1 Controller"
Y
Remove the left-hand side cover and light protect plate.
"Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
Power ON.
Test pin voltage on each board normal?
N
Voltage on the power supply unit normal?
N
Replace the power supply unit.
"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
[2], [3], [4], [5]
Y
"9.2 Checking the Voltage on the Power Supply Unit"
Turn ON the high-voltage switch.
Reinstall the front cover and lower light protect plate.
END
Return to the error code analysis flow.
[2] Checking the Voltage on the CPU12A Board Test Pin (TP1)
CPU12A board
CN6
CN5
S1
TP1
S3
TP1
2
GND
1
+5V(A)
: GND
+5V(A)
Test pin TP1
Voltage
Reference voltage
TP1 1-2
+5V
Should be within a range from +4.95 to 5.20 V.
010-051-00
10.10.2000 FM2BB7
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Return to the Error Analysis Flow section number or indicated page. B

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1.2 How to Understand Error Log

When an error code is displayed, check the error log.

■ How to Understand the Error Log List

When multiple errors occurred, the error at the beginning that occurred at the same time (with a margin of about 2 minutes) is the most likely cause that is directly responsible for the trouble.

Check the error log to see which is the error at the beginning.

● Error log format

Error code Occurrence date

```
12256   2000.10.07 13:12:19 00257D tiphscan____
        3D0004 ScnCmFnc.c 2817
12255   2000.10.07 13:12:10 00258D tiphscan____
        3D0004 400000,00 00 00 609C 6098
                    •
                    •
                    •
```

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● How to identify the error code at the beginning

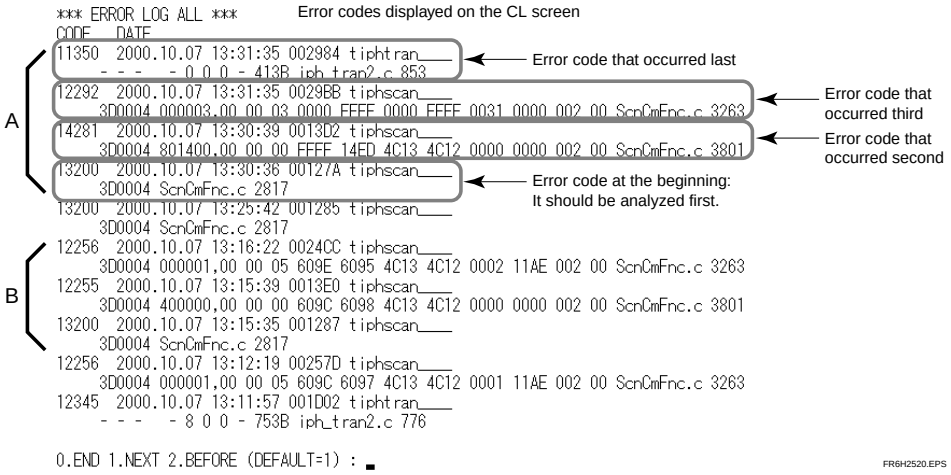
The error log presented below is an example where two causes (A and B) were logged.

- Errors that occurred at the same time (with a margin of about two minutes) are categorized as the same error occurrence group.
- An error that occurred first (at the earliest time) within a certain error occurrence group is considered as the first-occurred error.

(Example)

- Error occurrence groups A and B are judged as separate error occurrence groups, because the difference between their error occurrence times is 14 minutes.
- The error that first occurred in group A is “13200”.

Below is shown, by way of example, how to identify the error code for software version A02.



FR6H2520.EPS

Note, however, that the display of the error log differs depending on the software version.

• Display: For A02

```
*** ERROR LOG ALL ***CODE DATE
13603 2000.08.25 14:51:45 00DC05 toammoni_3D0004 commonitar_Op.c 258
10921 2000.08.25 14:50:33 00C014 toamerrsnd_0 microtfnc,c 2138
       •
       •
       •
10921 2000.08.25 14:45:25 00C013 toamerrsnd_0.END 1.NEXT(DEFAULT=1) : 1
CODE DATE
13603 2000.08.25 14:20:15 00DC05 toammoni_3D0004 commonitar_Op.c 258
10921 2000.08.25 14:05:01 00C014 toamerrsnd_0 microtfnc,c 2138
       •
       •
       •
10921 2000.08.25 13:50:30 00C013 toamerrsnd_0.END 1.NEXT(DEFAULT=1) : 0
```

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• Display: For A03 and A04

```
*** ERROR LOG ALL ***CODE DATE
[13603] 2000/08/25 14:51:45 00DC05 toammoni_:3D0004 commonitar_Op.c 258
[10921] 2000/08/25 14:50:33 00C014 toamerrsnd_:0 microtfnc,c 2138
       •
       •
       •
[10921] 2000/08/25 14:45:25 00C013 toamerrsnd_0.END 1.NEXT(DEFAULT=1) : 1
CODE DATE
[13603] 2000/08/25 14:20:15 00DC05 toammoni_:3D0004 commonitar_Op.c 258
[10921] 2000/08/25 14:05:01 00C014 toamerrsnd_:0 microtfnc,c 2138
       •
       •
       •
[10921] 2000/08/25 13:50:30 00C013 toamerrsnd_0.END 1.NEXT(DEFAULT=1) : 0
```

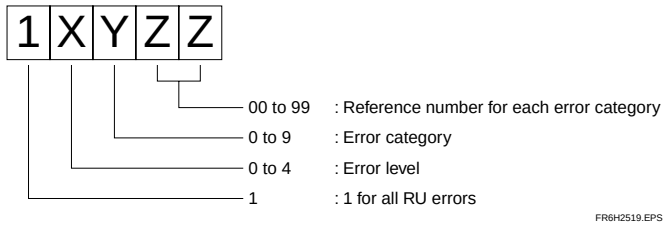
FR6H2565.EPS

• Display: For A05

```
*** ERROR LOG ALL ***CODE DATE
[13603] 2000/08/25 14:51:45 00DC05 <SR> T02:3D0004 commonitar_Op.c 258
[10921] 2000/08/25 14:50:33 00C014 <BR> T99:0 microtfnc,c 2138
       •
       •
       •
[10921] 2000/08/25 14:45:25 00C013 <BR> T90.END 1.NEXT(DEFAULT=1) : 1
CODE DATE
[13603] 2000/08/25 14:20:15 00DC05 <SW> T02:3D0004 commonitar_Op.c 258
[10921] 2000/08/25 14:05:01 00C014 <BR> T99:0 microtfnc,c 2138
       •
       •
       •
[10921] 2000/08/25 13:50:30 00C013 <BR> T990.END 1.NEXT(DEFAULT=1) : 0
```

FR6H2566.EPS

■ Error Code Detail


1XYZZ
00 to 99 : Reference number for each error category
0 to 9 : Error category
0 to 4 : Error level
1 : 1 for all RU errors
FR6H2519.EPS

● X: Error level

Error level notations

FATAL error: 0 or 9

- The user is notified of an error occurrence.
- Level of error where the routine processing cannot be resumed.
- It is necessary to immediately troubleshoot and take remedial action.

WARNING: 2

- An error is logged, but the user is not notified.
- Level of error where the function associated with the error is rendered unusable.
- It is necessary to immediately troubleshoot and take remedial action.

WARNING: 1

- The user is notified of an error occurrence.
- Errors that occur due to erroneous user operation (incorrect loading of the cassette or IP, etc.).
- If this level of error occurred at the same time with another level of warning, it is necessary to troubleshoot and take remedial action.

WARNING: 4

- An error is logged, but the user is not notified.
- Errors that occur when a retry operation is performed.
- If the same error occurs frequently and if this level of error occurs at the same time with another level of warning, it is necessary to troubleshoot and take remedial action.

WARNING: 3

- An error is logged, but the user is not notified.
- Errors that occur when servicing procedures are performed.

● Y: Error category

0: OS (operating system software), libraries
1: Image processing CPU
2: Scanner control
3: Conveyance control
4: Overall control
5: Network control
6: Reserved
7: Electrical/hardware related
8: Reserved
9: Others (software installation, version update, etc.)

● ZZ: Reference number

It is managed according to each error category.

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Error Code	Error Name	Occurrence Condition	Analysis Flow
10026	Machine configuration error	During bootup, the configuration file in the flash ROM on the CPU12A board is defective, so that installation is not automatically performed from the FTP server running on the CL.	6.1
10100	Image processing initialization error	When an attempt is made to initialize the image processing section of the CPU board during the machine initialization routine, either of the errors ranging from 12101 to 12108 is detected. Because error, from 12101 to 12108, is detected three times or more, fatal error results.	8
10120	Image processing CPU sequence error	During IP read processing, an attempt is made to activate the sub-CPU (image processing section) of the CPU board, but error, from 12121 or 12125, is detected. Because error, from 12101 to 12108, is detected three times or more, fatal error results.	8
10230	Scanner power supply error during bootup	During bootup, because the connector (CN1 on the PMT12A board, CNE1 on the scanning optics unit, CNE2 on the scanning optics unit, CN1 on the SYN12A board, or CN1 on the LDD12A board) is disconnected, the laser (LDD), start-point detection (SYN), and photomultiplier (PMT) functions are disabled. Because the laser is not enabled, the leading-edge detection (SED) cannot be performed (detail code: D0F603). Note that if the HV is OFF, the detail code is D0F403.	MT-88
10231	Scanner power supply error during bootup (1)	During bootup, because +15V is not supplied to the SCN12A board due to blow of the fuse (H11 on the MTH board) or +15V power supply error, most of the functions, except for the polygonal mirror (POL) and laser (LDD), are disabled (detail code: A0DF03). Note that if the HV is OFF, the detail code is A0DD03.	MT-90
10232	Scanner power supply error during bootup (2)	During bootup, because the fuse (H12 on the SCN12A board) is blown, the photomultiplier (PMT) and start-point detection (SYN) functions are disabled (detail code: 809603). Note that if the HV is OFF, the detail code is 809403.	MT-92
10233	Scanner power supply error during bootup (3)	During bootup, because the fuse (J11 on the MTH12A board) is blown or because -15V is not supplied to the SCN12A board, the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled. Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C1DD03).	MT-94

Error Code	Error Name	Occurrence Condition	Analysis Flow
10234	Scanner power supply error during bootup (4)	• During bootup, because the fuse (J12 on the SCN12A board) or the fuse (H12 on the SCN12A board) is blown, ±15V is not supplied to the SCN12A board, and the photomultiplier (PMT), start-point detection (SYN), laser (LDD), and SCN board (PLL) functions are disabled. Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0DC03). • During bootup, because -15V is not supplied to the SCN12A board due to blow of the fuse (J11 on the MTH12A board) or -15V (SLOT4) power supply error, the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled. Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0D400). • During bootup, because ±15V is not supplied, except for the laser (LDD), due to blow of the fuse (J11 on the MTH12A board, or J12, H12, or H14 on the SCN board), the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled. Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0D603). Note that if the HV is OFF, the detail code is C0D400.	MT-96
10235	Scanner power supply error during bootup (5)	• During bootup, because 24V is not supplied to the SCN12A board due to blow of the fuse (K11 on the MTH12A board) or 24V (SLOT5) power supply error, the polygonal mirror (POL) function is disabled (detail code: D01403). • During bootup, because the fuses (H14 and A22 on the SCN board) are blown or because 5V is not supplied to the SYN12A board and SED12A board, the leading-edge detection (SED) and start-point detection (SYN) functions are disabled (detail code: C01403).	MT-98
10236	Scanner power supply error during bootup (6)	During bootup, because ±15V is not supplied to the SYN12A board, PMT12A board, and LDD12A board due to blow of the fuses (J12 and H12 on the SCN board), the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled. Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: 819603). Note that if the HV is OFF, the detail code is 819403.	MT-100
10244	Scanner control board error (4)	For self-diagnostic during bootup, an SCN board diagnostic error associated with polygon error is detected. Because the PLL on the SCN12A does not oscillate, a polygon sync signal cannot be detected.	-

Error Code	Error Name	Occurrence Condition	Analysis Flow
10261	Polygon stop/rotation error (1)	During routine processing, error for the polygon lock signal (PONL, POKL) is detected so that the polygonal mirror function is disabled. The start-point detection (SYN) and leading-edge detection (SED) functions are also disabled (detail code: D03403).	MT-112
10271	Laser unlit error (1)	During routine processing, the laser (LDD) and start-point detection (SYN) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: 815403).	MT-116
10281	Start-point detection error during bootup (1)	During bootup, because the signal from the start-point detection (SYN) is faulty, the SCN12A board does not operate normally (detail code: 801C03).	MT-102
10283	Scanning optics unit board error (1)	For self-diagnostics prior to reading during routine processing, an SCN board diagnostic error (C05401 or C07403) associated with polygon error is detected. The laser is unlit due to a disconnected connector at the scanning optics unit, etc., so that an error related to the polygon error occurs, as well.	-
10298	Before-reading scanner retry error	During routine processing, because the scanner-related error is detected, the IP is returned to the cassette and the scanner is initialized. The routine processing is retried again, but the scanner-related error recurs.	MT-104
10300	IP sensor logical inconsistency	During bootup, the remaining IP is ejected, but the sensor having logical inconsistency for its IP sensor result is detected.	MT-52
10301	Sensor error	During bootup, the sensor is turned OFF after the timeout of the mechanical operation is detected, but the sensor does not transition to CLOSE.	MT-53
10302	Broken wire sensor detected	During bootup, the result of IP search detects the presence of an IP, but the backup memory information indicates that there is no IP in the machine. The backup memory has a record indicating that the IP conveyance was performed before power recovery.	MT-52
10303	IP initialization search error	During bootup, the result of location information confirmation for IP search indicates the absence of an IP, but the backup memory information indicates the presence of an IP in the machine. System shutdown is selected via user intervention.	MT-54

Error Code	Error Name	Occurrence Condition	Analysis Flow
10304	IP conveyance error During bootup (1)	During bootup, the IP search detects the presence of an IP. The CLOSE state of the SB1, SC3, and SC4 is detected, and the MB1 and MC3 are driven, but any of the sensors does not transition to OPEN. The backup memory has a record indicating the presence of an IP in the machine.	MT-54
10305	IP conveyance error During bootup (2)	During bootup, the IP search detects that there is an IP in the machine that is difficult to convey. The backup memory has a record indicating the absence of an IP in the machine. IP conveyance is not performed before power-OFF. It is presumed that the backup memory has been cleared.	MT-54
10306	IP positioning error at side-positioning conveyor During bootup	During bootup, the MB1 and MC3 are driven (clockwise) to perform side-positioning operation for remaining IP processing, but the SC3 does not transition to CLOSE within the specified period of time.	MT-56
10307	Length-measurement conveyance error During bootup	During bootup, the MZ1, MC3, and MB1 are driven (counterclockwise) to measure the IP size for remaining IP processing, but the SC3 does not transition to CLOSE within the specified period of time. Alternatively, it transitions to CLOSE but not to OPEN.	MT-56
10318	Suction cup HP operation error	During bootup or routine processing, because error (14315, 14316, 14317) is detected, retries (four times or more) are performed, but error (fatal error) results.	MT-57
10334	Side-positioning HP operation error	During bootup or routine processing, because error (14331, 14332, 14333) is detected, retries (four times or more) are performed, but error (fatal error) results.	MT-58
10338	Side-positioning grip HP operation error	During bootup or routine processing, because error (14335, 14336, 14337) is detected, retries (four times or more) are performed, but error (fatal error) results.	MT-59
10340	IP stopper protrusion error	During bootup, the SolZ1 is turned ON to protrude the stopper, but the SZ4 does not transition to OPEN within the specified period of time. Retries (six times or more) are performed, but error results.	MT-60
10341	IP stopper retreat error	During bootup and shutdown processing, the SolZ1 is turned OFF to retreat the stopper, but the SZ4 does not transition to CLOSE within the specified period of time. Retries (six times or more) are performed, but error results.	MT-60

Error Code	Error Name	Occurrence Condition	Analysis Flow
10346	Driving shaft grip error	During bootup, the MZ2 is driven to grip the driving shaft, but the SZ2 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.	MT-62
10347	Driven shaft grip error	During bootup, the MZ2 is driven to grip the driven shaft, but the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.	MT-64
10348	Both grip release error	During bootup, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.	MT-62
10349	Driven shaft grip release error	During bootup, the MZ2 is driven to release the driven shaft grip, but the SZ3 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.	MT-64
10353	Driving shaft correction grip error	During bootup, the MZ2 is driven to correct the speed, but the SZ2 does not transition to OPEN within the specified period of time.	MT-62
10354	Initialization grip movement (1) error	During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results	MT-64
10355	Initialization grip movement (2) error	During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to CLOSE or the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.	MT-62
10356	Ejection grip error	During bootup, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.	MT-64
10357	No-load running error	During bootup, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.	MT-64
10360	After-erasure conveyance error	During routine processing, the SB1 cannot detect the IP leading edge for after-erasure conveyance (the MB1 is driven counterclockwise). The MB1 is driven (counterclockwise) to perform load conveyance, but the SB1 does not transition to CLOSE within the specified period of time (20 sec).	MT-76

Error Code	Error Name	Occurrence Condition	Analysis Flow
10361	After-recovery-erasure conveyance error	During error handling, the SB1 cannot detect the IP leading edge. The MB1, MC1, and MZ1 are driven (counterclockwise) for load conveyance, but the SB1 does not transition to CLOSE within the specified period of time (20 sec). (The SB1 is in OPEN status.)	MT-76
10370	Load positioning error	During routine processing, the MB1 is driven (counterclockwise) to perform load conveyance, but the SB1 does not transition to OPEN within the specified period of time.	MT-66
10371	Recovery load positioning error	During error handling, the MB1, MC1, and MZ1 are driven (counterclockwise) for load conveyance after the IP leading edge is detected by the SB1, but the SB1 does not transition to OPEN within the specified period of time (20 sec).	MT-66
10390	Dust removal operation error (1)	During bootup or U-Utility dust removal operation, the MZ3 is driven (clockwise), but the SZ5 does not transition to CLOSE within the specified period of time (30 sec).	MT-68
10391	Dust removal mechanism lock (1)	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but a mechanism lock results. Subsequently, the MZ3 is driven (clockwise), but the SZ5 does not transition from CLOSE to OPEN within the specified period of time (30 sec).	MT-68
10392	Dust removal mechanism lock (2)	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but a mechanism lock results. Subsequently, the MZ3 is driven (clockwise), but the SZ3 does not transition from OPEN to CLOSE within the specified period of time (30 sec).	MT-68
10393	Dust removal operation error (4)	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to perform home positioning, but the SZ5 does not transition from CLOSE to OPEN within the specified period of time (30 sec).	MT-68
10394	Dust removal CCW drive error	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise), but two or more retries occur. However, driving in the clockwise direction is normal.	MT-70
10400	Network board error	During bootup and routine processing, error is detected on the Ethernet section on the CPU12A board of the RU.	6.1
10700	SDRAM test error	During bootup, when the SDRAM, or the main memory of the CPU12A board, is tested, error is detected. The warning is recorded and retries (up to two times) are performed, but error is detected again.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
10799	CPU bus error	During bootup and routine processing, an unthinkable state is detected by the main CPU on the CPU12A board.	8
10900	Conveyance-related driver error	During bootup and routine processing, the driver used for conveyance-related software processing between the CPU12A and SNS12A boards causes ERROR to be returned as a return value.	6.2
10901	Conveyance-related common function error	During bootup and routine processing, ERROR is returned as a return value for the common function used for conveyance-related software processing between the CPU12A and SNS12A boards.	6.2
10902	Conveyance-related standard function error	During bootup and routine processing, ERROR is returned as a return value for the standard function used for conveyance-related software processing between the CPU12A and SNS12A boards.	6.2
10903	Conveyance-related device OPEN error	During bootup and routine processing, ERROR is returned as a return value for device OPEN used for conveyance-related software processing between the CPU12A and SNS12A boards.	6.2
10921	Watchdog error	During bootup and routine processing, the watchdog timer on the CPU12A board times out.	8
10991	Device open error	During bootup and routine processing, the device open error on the CPU12A board occurs.	8
11024	Machine application update	Writing of the RU APPL software from the FTP server of the CL to the CPU12A board flash ROM of the RU is completed normally.	-
11025	Machine configuration update	Writing of the RU configuration data from the FTP server of the CL to the CPU12A board flash ROM of the RU is completed normally.	-
11094	Socket error	During bootup, error related to socket communication is detected. Socket communication cannot be performed normally due to software bugs.	-
11208	Laser drive current error	During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.	MT-106
11272	Insufficient laser light intensity	During bootup, laser OK signal (LD1OKH, LD1OKL) error is detected.	MT-106
11273	Laser life warning	During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.	MT-106

Error Code	Error Name	Occurrence Condition	Analysis Flow
11303	IP initialization search error	During bootup, the IP search determines that there is no IP. However, the conveyance backup memory has a record indicating the presence of an IP in the machine for routine processing.	MT-54
11309	Cassette setting error (3)	Because the cassette is inserted into the RU while the CL is in "Unacceptable (cassette cannot be accepted)" condition, the cassette is fed once and ejected without reading; as a result, a message notifying that reading has not be done is displayed on the CL.	-
11310	Cassette setting error (1)	During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned OFF, the SA3 does not transition to OPEN. Retries (six times or more) are performed, but error results.	MT-71
11311	Cassette setting error (2)	During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned ON, the cassette is moved, but the SA2 does not transition to CLOSE within the specified period of time. However, the SA1 is CLOSE.	MT-71
11312	Cassette hold release error	During routine processing, the SolA1 is turned ON to release the cassette hold, but the SA3 does not transition to CLOSE within the specified period of time. Retries (six times or more) are performed, but error results.	MT-72
11319	Feed IP suction error	During routine processing, the MA1 is driven (counterclockwise) and the PA1 is turned ON to perform IP feed leak, but the SA5 does not transition to CLOSE within the specified period of time. Retries (four times or more) are performed, but error results.	MT-74
11320	Feed IP drop	During bootup and routine processing, the MA1 and MB1 are driven (clockwise) to feed the IP from the cassette, but the SA5 transitions to OPEN at the time when the IP is griped by the rollers. Retries (two times or more) are performed, but error results.	MT-74
11321	Feed IP grip error	During bootup and routine processing, the MB1 is driven (clockwise) to perform IP feed leak and conveyance, but the SB1 does not transition to CLOSE within the specified period of time. Retries (four times or more) are performed, but error results.	MT-74
11322	Feed conveyance error	During routine processing, the MB1 and MC3 are driven (clockwise) to perform IP high-speed conveyance, but the SC3 transitions to OPEN. Retries (four times or more) are performed, but error results.	MT-74
11323	Length-measurement conveyance error	During routine processing, the MB1 and MC3 are driven (clockwise) to determine the IP size, but the SB1 transitions to OPEN. Retries (four times or more) are performed, but error results.	MT-76

Error Code	Error Name	Occurrence Condition	Analysis Flow
11325	Load leak error	During routine processing, the SVA1 is turned ON and the PA1 is turned OFF to leak the IP after loading it into the cassette, but the SA5 does not transition to OPEN.	MT-77
11340	IP stopper protrusion error	During routine processing, the SOLZ1 is turned ON to protrude the IP stopper after IP feed leak, but the SZ4 transitions to CLOSE. SZ4 checks are retried (two times or more), but error results.	MT-60
11341	IP stopper retreat error	During routine processing and U-Utility dust removal operation, the SOLZ1 is turned OFF to retreat the IP stopper, but the SZ4 transitions to OPEN. SZ4 checks are retried (six times or more), but error results.	MT-60
11342	Reading IP leading-edge detection error	During routine processing, the MZ1 is driven (clockwise) to perform read processing, but the SZ1 transitions to OPEN. Subsequently, the laser is turned OFF, and when IP conveyance is performed to isolate the error, the SC3 transitions to OPEN.	MT-78
11343	Subscanning conveyance error (1)	During routine processing, the MZ1 is driven (clockwise) to perform read processing, but the SZ1 transitions to OPEN. Subsequently, the laser is turned OFF, and when IP conveyance is performed to isolate the error, the SC3 transitions to CLOSE.	MT-78
11344	Subscanning conveyance error (2)	During routine processing, the SC3 does not transition to OPEN within the specified period of time before the end-of-image interrupt after reading is initiated.	MT-78
11350	End-of-image timeout	During routine processing, the end-of-image interrupt from the scanner board is not processed within the specified period of time after reading is initiated.	MT-79
11362	After-reading conveyance error	During routine processing, the MZ1, MC3, and MB1 are driven (counterclockwise) to convey the IP to the erasure unit after reading is completed, but the SC4 does not transition to CLOSE within the specified period of time.	MT-80
11363	Erasure conveyance error	During routine processing, the MC3 and MB1 are driven (counterclockwise) to perform erasure conveyance of the IP after reading, but the SC4 does not transition to OPEN.	MT-81
11366	Overexposed IP detected	During routine processing, an overexposed IP is detected.	-

Error Code	Error Name	Occurrence Condition	Analysis Flow
11371	Load IP drop	During bootup and routine processing, the MB1 is driven (counterclockwise) to reload the IP due to the load IP drop retry (14373) or load IP suction failure retry (14372), but the SB1 does not transition to OPEN within the specified period of time.	MT-82
11372	Load IP suction error	During routine processing, the PA is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN within the specified period of time. Retries (four times or more) are performed, but error results.	MT-82
11373	Load IP drop	During routine processing, the PA1 is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN at the time when the IP is released. Retries (four times or more) are performed, but error results.	MT-82
11380	Maximum empty cassette setting	During bootup, an attempt is made to eject (load) the remaining IP into the cassette, but the cassette has not been set.	MT-83
11387	Recovery IP processing	During bootup, the remaining IP that has not been erased is detected.	MT-84
11400	Unread IP ejection (1)	During routine processing, the IP is ejected, without being read, to the cassette for some reason on the CL side.	-
11401	Unread IP ejection (2)	During routine processing, the IP is ejected, without being read, to the cassette for some reason on the RU side.	-
11402	Retransmission retry failure cassette ejection	During routine processing, an attempt is made to retransmit the unsent image data from the RU to the CL after communication down processing with the CL, the CL rejects it, so that the image data is lost, and the cassette is ejected.	6.1
11731	Thermistor failure detection (during erasure initialization)	During bootup, it is detected that temperature control of the erasure unit is disabled due to temperature thermistor (THB1) error.	6.4
11732	Thermistor status error detection (during erasure initialization)	During bootup, the temperature thermistor (THB1) detects an abnormal range. Temperature control of the erasure unit is disabled.	6.4
11737	Lamp unlit detection (during erasure initialization)	During bootup, the erasure lamps are turned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.	6.4

Error Code	Error Name	Occurrence Condition	Analysis Flow
11751	Thermistor failure detection (during IP processing)	During routine processing, error for the temperature thermistor (THB1) is detected.	6.4
11752	Erasure unit temperature status inconsistency (during IP processing)	During routine processing, error for the temperature states (LED: D15, D11, D10, D13) in the erasure unit is detected. Temperature control of the erasure unit is disabled.	6.4
11757	Lamp unlit detection (during erasure idle temperature control)	During machine idle state, in order to perform erasure temperature control, the erasure lamps are turned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.	6.4
11767	Lamp unlit detection (during IP erasure lighting)	During IP erasure, the erasure lamps are turned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.	6.4
11781	Thermistor failure detection (during idling)	During idle state after machine bootup, error for the temperature thermistor (THB1) is detected.	6.4
11782	Erasure unit temperature status inconsistency (during idling)	During bootup, error for the temperature states (LED: D15, D11, D10, D13) in the erasure unit is detected. Temperature control of the erasure unit is disabled.	6.4
11890	Power supply C31 error	During bootup and routine processing, the blow of the fuse C31 on the MTH12A board is detected.	10.5
12026	Image transfer timeout	During routine processing, the image data is not sent from the sub-CPU of the CPU12A board to the CL. (Timeout error)	6.1
12028	Backup SRAM initialization warning	Initialization of the backup memory on the CPU12A board is executed. • The machine that has been powered OFF for several months is booted up. • The machine is booted up after the backup memory is cleared in M-Utility. • The machine is booted up after erasure mode switching and resetting are performed and the backup memory is cleared.	-
12033	Barcode data reading error	Because an attempt to read the barcode data on the CPU12A board, a retry is performed.	8
12035	Preheat warning during erasure lamp lighting	During bootup and routine processing, because the erasure lamps are turned on without preheating them, the erasure lamps are not lit.	6.4

Error Code	Error Name	Occurrence Condition	Analysis Flow
12036	Scanner communication timeout	During bootup and routine processing, a timeout occurs for communication between the main CPU (CPU12A board) and scanner H8CPU (SCN12A board).	6.3
12037	Scanner communication checksum error	During bootup and routine processing, a checksum error occurs for communication between the main CPU (CPU12A board) and scanner H8CPU (SCN12A board).	6.3
12040	Failure to register reset switch interrupt	During bootup and routine processing, because an attempt to register the reset switch interrupt on the CPU12A board fails, the reset switch does not function.	8
12062	HOST alternative function warning	Service job log • The machine is booted up after erasure mode switching and resetting are performed and the backup memory is cleared. • The image output function is activated by using the M-Utility function on the RU side.	-
12063	Image processing CPU error during operation	During routine processing, because the data sent from the sub-CPU of the CPU12A board has an insufficient or excess number of pixels, the software performs processing to supplement or cut the insufficient or excess number of pixels in the line direction.	8
12070	Backup SRAM write error	During bootup and routine processing, an attempt to write to the backup memory (SRAM) fails. Or, a write to the backup SRAM is performed during backup memory test.	8
12071	Flash ROM write error	An attempt to write the flash ROM on the CPU12A board fails.	8
12090	Software logic warning	During bootup and routine processing, the software executes an abnormal case. Although the process may be resumed as is, its error log is generated.	-
12092	FTP server access error	During bootup and routine processing, the FTP server cannot be accessed for communication from the RU to the CL. Or, the FTP server may be accessed, but a connection cannot be established.	6.1
12093	FTP server file acquisition error	During bootup and routine processing, the FTP server cannot be accessed for communication from the RU to the CL. Or, the FTP server may be accessed, but a file cannot be obtained.	6.1
12094	ACK timeout	During bootup and routine processing, a FTP server connection timeout error occurs for communication from the RU to the CL.	6.1

Error Code	Error Name	Occurrence Condition	Analysis Flow
12101	Image processing CPU data output shortage	• A warning log indicating that dummy data was sent from the CPU12A board due to image data shortage. • During routine processing, the image data sent from the SCN12A board to the CPU12A board is insufficient.	6.2
12148	Image frame clock timeout	A timeout of the frame clock lock (information indicative of the beginning of the image data) from the SCN12A board is detected by the sub-CPU. (30 seconds)	6.3
12149	Image processing pixel clock excess error	An error is detected for the pixel clock from the sub-CPU to the SCN12A board. • The pixel clock that is larger than the parameter value is detected. • The pixel clock, which is part of image data, denotes the number of pixels per one line of the image data.	6.3
12150	Image processing pixel clock shortage error	During routine processing, when the image data from the SCN12A board is processed, an insufficient number of pixels for a certain line is detected by the sub-CPU.	6.3
12151	Image processing line clock excess error	During routine processing, when the image data from the SCN12A board is processed, an excess number of lines is detected.	6.3
12152	Image processing line clock shortage error	During routine processing, when the image data from the SCN12A board is processed, an insufficient number of lines is detected, or even when five seconds have passed after the trailing edge of a certain line clock, the trailing edge of its subsequent line clock cannot be detected.	6.3
12153	Image processing frame clock error	During routine processing, when an image processing command is accepted from the SCN12A board to the sub-CPU, the sub-CPU have already received the frame clock from the SCN.	6.3
12154	Image processing overrun error	During routine processing, the main CPU loses some of the image data from the sub-CPU.	8
12164	FIFO data count shortage error	During routine processing, the sub-CPU completes its processing normally, but the number of pixels received by the main CPU via the FIFO is insufficient.	8
12165	FIFO data count excess error	During routine processing, the sub-CPU completes its processing normally, but the number of pixels received by the main CPU via FIFO is excessive.	8
12201	Start-point detection error	During bootup and routine processing, error for the start-point detection signal (SSH, SSL) is detected.	MT-102

Error Code	Error Name	Occurrence Condition	Analysis Flow
12202	Leading-edge detection error	During bootup and routine processing, only error for the leading-edge detection signal (SED1, SED2L) is detected.	MT-108
12203	SCN sync signal error	For self-diagnostics prior to reading during bootup, an SCN board diagnostic error (no main-scan sync signal is generated) associated with polygon error occurs.	-
12204	Polygon index signal error	For self-diagnostics prior to reading during bootup, an SCN board diagnostic error (no polygon index signal is generated) associated with polygon error occurs.	-
12211	PMT analog power supply error	During bootup and routine processing, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.	MT-110
12212	Laser light intensity error	During bootup and routine processing, only error for the laser OK signal (LD1OKH, LD1OKL) is detected.	MT-106
12213	Polygon lock error	During bootup and routine processing, only error for the polygon lock signal (POKL, PONL) is detected.	MT-112
12214	Polygon rotation error	During bootup and routine processing, error is detected only for the polygon rotation detection function on the SCN12A board.	14.2
12215	PLL function error	During bootup and routine processing, error is detected only for the PLL function on the SCN12A board.	14.2
12216	Start-point interval error	During bootup and routine processing, error is detected only for the start-point interval function on the SCN12A board.	14.2 14.3
12217	High-voltage power supply error	During bootup and routine processing, error is detected only for the high-voltage power supply signal (HVOKH/L).	MT-110
12218	High-voltage command value error	During bootup and routine processing, error is detected only for the high-voltage command value diagnostics signal on the SCN12A board.	8
12225	Reading status error	During bootup and routine processing, error is detected only for the VSYNC signal on the SCN12A board.	8
12226	Operation line status error	During bootup and routine processing, error is detected only for the SEDTM/FCLKTM signal on the SCN12A board.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
12241	Scanner control board error (1)	During routine processing, error is detected for the PLL function, polygon rotation function, start-point interval function on the SCN12A board.	14.2 14.3
12242	Scanner control board error (2)	During routine processing, because the PMT high-voltage value is not set correctly on the SCN12A board, error is detected for the high-voltage command diagnostics.	14.5
12243	Scanner control board error (3)	During bootup self-diagnostics, error is detected for the start-point mask signal generated from the SCN12A board and the index signal (PINDXL) from the polygonal mirror (POL).	14.3
12251	Photomultiplier control board error (1)	During routine processing, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected (detail code: 008200). Note that if the HV is OFF, the detail code is 008000.	MT-110
12252	Photomultiplier control board error (2)	During routine processing, only error for the high-voltage power supply signal (HVOKH, HVOKL) is detected.	MT-110
12255	Leading-edge detection error	During bootup, only error for the leading-edge detection signal (SED1, SED2L) is detected.	MT-108
12256	Leading-edge detection timing error	During routine processing, IP conveyance overrun occurs due to mechanical error or SCN12A board control error, and only error for the SEDTM and FCLKTM signals on the SCN12A board is detected.	MT-114
12262	Polygon rotation error (2)	• During routine processing, error for the signals (PONL, POKL, PINDXL) from the polygonal mirror (POL) and the start-point interval function on the SCN12A board is detected (detail code: 003400). • During routine processing, error for the polygon lock signal (PONL, POKL) and error for the start-point interval function and polygon rotation detection function on the SCN12A board are detected (detail code: 003400).	MT-112
12263	Polygon rotation error (3)	During routine processing, only error for the lock signal (POKL, PONL) from the polygonal mirror (POL) is detected (detail code: 002000). If error for the SEDTM or FCLKTM signal on the SCN12A board is detected, the detail code is 002003.	MT-112

Error Code	Error Name	Occurrence Condition	Analysis Flow
12264	Polygonal rotation error (4)	During routine processing, error for the signals (PONL, POKL, PINDXL) from the polygonal mirror and the SEDTM signal on the SCN12A board is detected (detail code: 001002). Alternatively, error for the index signal (PINDXL) from the polygonal mirror and the SEDTM and FCLKTM signals on the SCN12A board is detected (detail code: 0010030). Alternatively, error for the signals (POKL, PINDXL) from the polygonal mirror and the SEDTM signal on the SCN12A board is detected (error code: 001002).	MT-112
12272	Insufficient laser light intensity (1)	During routine processing, the laser light intensity is less than 50%, and the laser light intensity error signal (LD1OKL, LD1OKH) is detected (detail code: 004000). Alternatively, the laser light intensity error signal (LD1OKL, LD1OKH) and laser drive current value (LDIF) error are detected (detail code: 014000).	MT-106
12273	Laser life warning	During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.	MT-106
12281	Start-point detection error (1)	During routine processing, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801C03). Alternatively, the disabled state of the start-point detection (SYN) function, and error for the PLL function on the SCN12A board are detected (detail code: 800C03). Alternatively, during routine processing, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801401).	MT-102
12282	Start-point detection error (2)	During bootup and routine processing, only error for the start-point interval function on the SCN12A board is detected (detail code: 000400). Alternatively, error for the start-point interval function and polygon rotation detection function on the SCN12A board is detected (detail code: 001400).	14.3
12291	Reading sequence error	During routine processing, error for the VSYNC signal on the SCN12A board is detected after IP reading is completed (detail code: 000002).	8
12292	Reading sequence error during routine (2)	Reading is completed by any interrupt other than the leading-edge detection interrupt or end-of-screen interrupt. At the same time, an insufficient number of output lines and a too-early start of reading are detected.	-

Error Code	Error Name	Occurrence Condition	Analysis Flow
12299	Error for scanner, etc.	For self-diagnostics prior to reading during routine processing, a combination of errors that should not have logically occurred were generated.	-
12301	Sensor error	During routine processing, the sensor is turned OFF after the timeout of the mechanical operation is detected, but the sensor does not transition to CLOSE.	MT-53
12302	IP location information logical failure	During bootup, the result of IP search indicates the presence of an IP, but the backup memory information indicates that there is no IP in the machine. Because there is no result of clearing the CMOS, it is logically inconsistent.	MT-52
12304	IP movement error at scanner unit During bootup	During bootup, the MB1, MC3, and MZ1 are driven (clockwise) for IP search, but the SC3 does not transition to OPEN within the specified period of time.	MT-54
12305	IP movement error at erasure conveyor/side-positioning conveyor During bootup	During bootup, the MB1 and MC3 are driven (clockwise) for IP search, but the SC3 does not transition to CLOSE within the specified period of time.	MT-54
12313	Cassette not detected	During routine processing, while the SolA1 is tuned ON to hold the cassette, the cassette is pulled all the way out of the shutter, and SA1 transitions to OPEN.	MT-85
12318	Suction cup return error	During bootup and routine processing, SA4 does not transition to CLOSE for suction cup HP check.	MT-57
12324	Barcode reading error	During routine processing, an attempt to read the barcode for feed conveyance fails. Retries (four times or more) are performed, but error results.	MT-87
12325	Feed leak error	During bootup and routine processing, the SVA1 is turned ON and the PA1 is turned OFF to perform IP feed leak, but the SA5 does not transition to OPEN.	MT-77
12326	HP return error during ejection	During routine processing, the MA1 is driven (counterclockwise) to perform suction cup home positioning after the cassette is ejected, but the SA4 does not transition to CLOSE.	MT-57
12334	Side-positioning operation error	During routine processing, the MC1 is driven (clockwise) to perform side-positioning home positioning, but the SC1 does not transition to CLOSE.	MT-58

Error Code	Error Name	Occurrence Condition	Analysis Flow
12338	Side-positioning grip operation error	During routine processing, the MC2 is driven (counterclockwise) to perform side-positioning grip home positioning, but the SC2 does not transition to CLOSE.	MT-59
12345	FFM drive W.F. disorder	During routine processing, wow-flutter error (irregular revolutions) of the FFM motor is detected.	MT-86
12346	Driving shaft grip error	During routine processing, the MZ2 is driven to perform driving-shaft slow grip after driven-shaft grip is completed, but the SZ2 does not transition from CLOSE to OPEN.	MT-62
12347	Driven shaft grip error	During routine processing, the MZ2 is driven to grip the driven shaft after side-positioning is completed, but the SZ3 does not transition to CLOSE. Retries (two times or more) are performed, but error results.	MT-64
12348	Both grip release error	During bootup and routine processing, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE. Retries (two times or more) are performed, but error results.	MT-62
12349	Driven shaft grip release error	During routine processing, the MZ2 is driven to release the driven shaft slow grip after reading, but the SZ3 does not transition to OPEN.	MT-64
12352	Driving shaft grip error stop	During bootup and routine processing, the grip time for the driving shaft grip deviates by ±3% relative to its specified value, but the SZ2 is CLOSE.	MT-64
12353	Driving shaft correction grip error	During routine processing, the MZ2 is driven to perform driving-shaft correction grip, but the SZ2 does not transition to OPEN.	MT-62
12354	Driving shaft grip disorder	During routine processing, the MZ2 is driven to perform driving-shaft slow grip and the SZ2 transitions from CLOSE to OPEN, but the grip time deviates by ±3% relative to its specified value.	MT-64
12355	Driving shaft grip malfunction	During bootup and routine processing, because the grip time for the driving shaft grip deviates by ±6% relative to its specified value, speed correction processing and operation check are performed.	MT-64
12356	Ejection grip error	During routine processing, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE. Retries (two times or more) are performed, but error results.	MT-64

Error Code	Error Name	Occurrence Condition	Analysis Flow
12357	No-load running error	During bootup and routine processing, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN. Retries (two times or more) are performed, but error results.	MT-64
12360	After-erasure conveyance error	During routine processing, the SB1 cannot detect the IP leading edge for after-erasure conveyance (the MB1 is driven counterclockwise). To perform load conveyance, the MB1 is driven (counterclockwise), but the SB1 does not transition to CLOSE within the specified period of time (20 sec). It is logged, with the operation continued.	-
12388	IP with improper generation or type detected	During routine processing, the IP of the type that is not set in the configuration is detected from the barcode data.	-
12390	Dust removal operation error (1)	During U-Utility dust removal operation, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE within the specified time (30 sec).	MT-68
12391	Dust removal operation error (2)	During U-Utility dust removal operation, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE within the specified time (30 sec).	MT-68
12392	Dust removal operation error (3)	During U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE within the specified period of time (30 sec).	MT-68
12393	Dust removal operation error (4)	During U-Utility dust removal operation, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE within the specified time (30 sec).	MT-68
12394	Dust removal operation error (5)	During shutdown processing, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE.	MT-68
12395	Dust removal operation in low speed	During bootup, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to OPEN within the specified time (30 sec) in the low-speed operation mode (the actuator, from its large hole to smaller hole).	MT-68
12401	Software initialization timeout	The initialization of the RU software is not completed within the specified period of time.	8
12402	User password setup failure	Password setup that is defined in the configuration fails.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
12403	FTP server registration failure	The IP address of the FTP server cannot be registered in the table that manages the OS.	6.1
12404	Failure to create device for FTP server access	An attempt to create a device for accessing the FTP server fails. Software automatic version update, log uploading, etc. cannot be done.	6.1
12406	Barcode data error	The data that is scanned by the barcode is inconsistent with the format (A********C: * denotes a numeral).	8
12407	Status check error after SCPU command writing	An image processing command is issued to the image processing unit (sub CPU), but the status of the sub CPU does not become IDLE or BUSY.	-
12408	Image processing CPU status error	After a command is sent, the status of the image processing CPU is not busy. Image reading is not performed, and the IP is ejected.	8
12409	IP size error	An IP of out-of-range size was set by the conveyance subsystem.	-
12410	Configuration checksum error	During bootup, the configuration file in the flash ROM on the CPU12A board causes a checksum error. Download the configuration file from the FTP server.	-
12502	Connection monitoring Com-Terminate detection	The communication disabled state between the CL and RU is detected. The communication connection is disconnected once, and enters the connection wait state.	6.1
12700	CPU board initial diagnostics test error	The machine is booted up with the SW S5 setting on the CPU12A board in the ON state.	-
12701	Bus error detection function error	During bootup and routine processing, error is found for the bus error detection.	8
12702	SCN-H8 microprocessor interrupt test error	During bootup and routine processing, an interrupt is sent from the main CPU of the CPU12A board to the H8CPU of the SCN12A board, but the interrupt is not completed normally.	6.3
12703	Sensor board interrupt test error	During bootup and routine processing, an interrupt is sent from the main CPU of the CPU12A board to the SNS12A board, but the interrupt is not completed normally.	6.2

Error Code	Error Name	Occurrence Condition	Analysis Flow
12730	Inverter cooling fan operation error (during erasure initialization)	During bootup, error for the FAN4 (inverter board cooling fan) is detected, but it is activated as usual.	6.4
12733	High-temperature error detection (during erasure initialization)	During bootup, the temperature thermistor (THB1) detects high-temperature error.	6.4
12735	Erasure cooling fan diagnostics error (during erasure initialization)	During bootup, error for the FAN3 (erasure unit lamp house cooling fan) is detected, but only a warning is recorded, and fan control continues as usual.	6.4
12736	Single lamp unlit detection (during erasure initialization)	During bootup, because one of the three lamps is unlit, the machine is booted up in the mode where the erasure time is extended.	6.4
12743	Erasure unit high-temperature error cancel	During bootup and routine processing, 12733 or 12753 occurs and the temperature of the erasure unit lamp reaches an abnormal level, so that the no-erasure mode is temporarily entered. Subsequently, because the erasure lamp temperature drops below the specified level (erasure-enabled temperature), it returns to the normal mode.	6.4
12753	Erasure unit high-temperature error	During routine processing and idling, the temperature thermistor (THB1) detects high-temperature error.	6.4
12756	Single lamp unlit detection (during erasure idle temperature control)	During idling, when the erasure lamps are turned on for erasure temperature control, a single lamp that is normally lit does not turn on, so that it enters the erasure time extension mode.	6.4
12766	Single lamp unlit detection (during IP erasure lighting)	During bootup and routine processing, when the erasure lamps are turned on during IP erasure, a single lamp is unlit, so that it enters the erasure time extension mode.	6.4
12799	Self-reset procedure error	An interrupt is received such that the main CPU has accessed the self-reset register that is usually accessed during shutdown processing, using improper procedure.	8
12800	Erasure unit safety thermostat TSWB1 operation	During bootup and routine processing, because the erasure unit lamp housing reaches an abnormally high temperature, the safety thermostat TSWB1 is activated.	6.4

Error Code	Error Name	Occurrence Condition	Analysis Flow
12810	Power supply A error	During bootup and routine processing, the blow of the fuses A21 on the MTH12A board, A22 on the SCN12A board, and A32, A33, A34, and A35 on the SNS12A board is detected.	10.1-10.6
12811	Power supply A21 error	During bootup and routine processing, the blow of the fuses A21 on the MTH12A board and A22 on the SCN12A board is detected.	10.4
12812	Power supply A22 error	During bootup and routine processing, the blow of the fuse A22 on the SCN12A board is detected.	10.4
12813	Power supply A32 error	During bootup and routine processing, the blow of the fuse A32 on the SNS12A board is detected.	10.5
12814	Power supply A33 error	During bootup and routine processing, the blow of the fuse A33 on the SNS12A board is detected.	10.6
12815	Power supply A34 error	During bootup and routine processing, the blow of the fuse A34 on the SNS12A board is detected.	10.6
12816	Power supply A35 error	During bootup and routine processing, the blow of the fuse A35 on the SNS12A board is detected.	10.1
12817	Power supply A3 error	During bootup and routine processing, the blow of the fuses A32, A33, A34, and A35 on the SNS12A board is detected.	10.1-10.6
12818	Power supply A series detection error	During bootup and routine processing, the blow of the fuse A21 on the MTH12A board is detected.	10.4
12819	Power supply A system error	During bootup and routine processing, it is detected that a combination of errors for software monitoring is other than a combination from 12810 to 12818.	10.1-10.6
12820	Power supply BC error	During bootup and routine processing, the voltage at point B of SLOT2 (+24V) on the power supply unit is not outputted, and the blow of the fuses B11, B21, C11, and C21 on the MTH12A board is detected.	10.5 10.7
12821	Power supply C error	During bootup and routine processing, the blow of the fuses C11 and C21 on the MTH12A board is detected.	10.5

Error Code	Error Name	Occurrence Condition	Analysis Flow
12822	Power supply B error	During bootup and routine processing, the voltage at point B of SLOT2 (+24V) on the power supply unit is not outputted, and the blow of the fuses B11 and B21 on the MTH12A board is detected.	10.5 10.7
12823	Power supply B11 error	During bootup and routine processing, the blow of the fuse B11 on the MTH12A board is detected.	10.5
12824	Power supply B21 error	During bootup and routine processing, the blow of the fuse B21 on the MTH12A board is detected.	10.5
12825	Power supply C11 error	During bootup and routine processing, the blow of the fuse C11 on the MTH12A board is detected.	10.5
12826	Power supply C21 error	During bootup and routine processing, the blow of the fuse C21 on the MTH12A board is detected.	10.5
12827	Power supply B series detection error	During bootup and routine processing, the voltage at point B of SLOT2 (+24V) on the power supply unit is not outputted.	10.7
12828	Power supply BC system error	During bootup and routine processing, the voltage at point B of SLOT2 (+24V) on the power supply unit is not outputted, or either of B11, B21, C11 or C21 on the MTH12A board is detected as defective, but a combination of errors for software monitoring is other than a combination from 12820 to 12827.	10.5 107
12830	Power supply DE error	During bootup and routine processing, the voltage at point D of SLOT3 (+24V) on the power supply unit is not outputted, and the blow of the fuses D11, D21, D31, D41, E11, E21, E31, and E41 on the DRV12A board is detected.	10.2 10.3 10.6 10.7
12831	Power supply D error	During bootup and routine processing, the voltage at point D of SLOT3 (+24V) on the power supply unit is not outputted, and the blow of the fuses D11, D21, D31, and D41 on the DRV12A board is detected.	10.2 10.3 10.6 10.7
12832	Power supply E error	During bootup and routine processing, the blow of the fuses E11, E21, E31, and E41 on the DRV12A board is detected.	10.2 10.3 10.6

Error Code	Error Name	Occurrence Condition	Analysis Flow
12833	Power supply D11 error	During bootup and routine processing, the blow of the fuse D11 on the DRV12A board is detected.	10.2
12834	Power supply D21 error	During bootup and routine processing, the blow of the fuse D21 on the DRV12A board is detected.	10.3
12835	Power supply D31 error	During bootup and routine processing, the blow of the fuse D31 on the DRV12A board is detected.	10.3
12836	Power supply D41 error	During bootup and routine processing, the blow of the fuse D41 on the DRV12A board is detected.	10.6
12837	Power supply E11 error	During bootup and routine processing, the blow of the fuse E11 on the DRV12A board is detected.	10.2
12838	Power supply E21 error	During bootup and routine processing, the blow of the fuse E21 on the DRV12A board is detected.	10.2
12839	Power supply E31 error	During bootup and routine processing, the blow of the fuse E31 on the DRV12A board is detected.	10.3
12840	Power supply E41 error	During bootup and routine processing, the blow of the fuse E41 on the DRV12A board is detected.	10.3
12841	Power supply D series detection error	During bootup and routine processing, the voltage at point D of SLOT3 (+24V) on the power supply unit is not outputted.	10.7
12842	Power supply DE system error	During bootup and routine processing, the broken line detection circuit D or either D11, D21, D31, D41, E11, E21, E31, or E41 is detected as abnormal, but a combination of errors for software monitoring is other than a combination from 12830 to 12841.	10.2 10.3 10.6
12850	Power supply H error	During bootup and routine processing, the voltage at point H of SLOT4 (+15V) on the power supply unit is not outputted, and the blow of the fuses H11 on the MTH12A and H12, H13, and H14 on the SCN12A is detected.	10.4 10.7

Error Code	Error Name	Occurrence Condition	Analysis Flow
12851	Power supply H11 error	During bootup and routine processing, the blow of the fuses H11 on the MTH12A board and H12, H13, and H14 on the SCN12A board is detected.	10.4
12852	Power supply H12 error	During bootup and routine processing, the blow of the fuse H12 on the SCN12A board is detected.	10.4
12853	Power supply H13 error	During bootup and routine processing, the blow of the fuse H13 on the SCN12A board is detected.	10.4
12854	Power supply H14 error	During bootup and routine processing, the blow of the fuse H14 on the SCN12A board is detected.	10.4
12855	Power supply H series detection error	During bootup and routine processing, the voltage at point H of SLOT4 (+15V) on the power supply unit is not outputted, or the blow of the fuse H11 on the MTH12A board is detected.	10.4 10.7
12856	Power supply H system error	During bootup and routine processing, it is detected that a combination of error for software monitoring is other than a combination from 12850 to 12855.	10.4
12860	Power supply J error	During bootup and routine processing, the voltage at point J of SLOT4 (-15V) on the power supply unit is not outputted, and the blow of the fuses J11 on the MTH12A and J12 on the SCN12A board is detected.	10.4 10.7
12861	Power supply J11 error	During bootup and routine processing, the blow of the fuses J11 on the MTH12A board and J12 on the SCN12A board is detected.	10.4
12862	Power supply J12 error	During bootup and routine processing, the blow of the fuse J12 on the SCN12A board is detected.	10.4
12863	Power supply J series detection error	During bootup and routine processing, the voltage at point J of SLOT4 (-15V) on the power supply unit is not outputted, or the blow of the fuse J11 on the MTH12A board is detected.	10.4 10.7
12864	Power supply J system error	During bootup and routine processing, it is detected that a combination of errors for software monitoring is other than a combination from 12860 to 12863.	10.4

Error Code	Error Name	Occurrence Condition	Analysis Flow
12870	Power supply K error	During bootup and routine processing, the voltage at point K of SLOT5 (+24V) on the power supply unit is not outputted, and the blow of the fuse K11 on the MTH12A board is detected.	10.4 10.7
12871	Power supply K11 error	During bootup and routine processing, the blow of the fuse K11 on the MTH12A board is detected.	10.4
12872	Power supply K series detection error	During bootup and routine processing, the voltage at point K of SLOT5 (+24V) on the power supply unit is not outputted.	10.7
12880	Power supply L error	During bootup and routine processing, the voltage at point L of SLOT5 (+15V) on the power supply unit is not outputted, and the error for the regulator L12 on the DRV12A board and the blow of the fuses L11, L21, and L31 on the DRV12A board are detected.	10.3 10.7
12881	Power supply L11 error	During bootup and routine processing, the error for the regulator L12 on the DRV12A board and the blow of the fuse L11 on the DRV12A board are detected.	10.3
12882	Power supply L12 error	During bootup and routine processing, the error for the regulator L12 on the DRV12A board is detected.	10.3
12883	Power supply L21 error	During bootup and routine processing, the blow of the fuses L21 and L31 on the DRV12A board is detected.	10.3
12884	Power supply L31 error	During bootup and routine processing, the blow of the fuse L31 on the DRV12A board is detected.	10.3
12885	Power supply L series detection error	During bootup and routine processing, the voltage at point L of SLOT5 (+15V) on the power supply unit is not outputted, or the blow of the fuse L11 or L21 on the DRV12A board is detected.	10.3 10.7
12886	Power supply L system error	During bootup and routine processing, it is detected that a combination of errors for software monitoring is other than a combination from 12880 to 12885.	10.7
12891	Power supply C series detection error	During bootup and routine processing, the voltage at point E of SLOT2 (+24V) on the power supply unit is not outputted, and the blow of the fuse C11, C21, or C31 on the MTH12A board is detected.	10.7

Error Code	Error Name	Occurrence Condition	Analysis Flow
12892	Power supply D51 error	During bootup and routine processing, the blow of the fuse D51 on the DRV12A board is detected.	10.2
12893	Power supply E51 error	During bootup and routine processing, the blow of the fuse E51 on the DRV12A board is detected.	10.2
12921	Image processing CPU status error	During routine processing, a status error occurs between the main CPU and sub-CPU on the CPU12A board.	8
12922	FTP server detection error.	During bootup and routine processing, the FTP server cannot be detected for communication from the RU to the CL	6.1
12923	Application download error	An attempt to download an application from the FTP server of the CL to the CPU12A board of the RU fails.	6.1
12960	Message format error	A message that is not defined in the FRUP protocol is received for communication from the RU to the CL.	6.1
12961	ACK timeout	A timeout in connection with the FTP server is detected for communication from the RU to the CL.	6.1
12970	Backup memory write warning	During bootup and routine processing, an attempt to write to the backup memory of the CPU12A board fails.	8
13010	Utility command concurrent execution error	Bootup by use of the production tool and bootup in M-Utility from the CL are performed concurrently.	-
13011	Utility command parameter error	An entry that is out of range that may be inputted in M-Utility is made.	-
13020	File comparison error	The content of the file in the FTP server is different from the content of the file (IPL data, APPL data) in the flash ROM on the CPU12A board of the RU.	6.1
13092	Software logic warning	After power ON, the machine is in condition that is not set in software.	8
13200	High-voltage OFF during bootup	During bootup, the photomultiplier (PMT) high voltage is OFF.	14.5

Error Code	Error Name	Occurrence Condition	Analysis Flow
13201	Start-point detection error	During M-Utility operation, only error for the start-point detection signal (SSH, SSL) is detected.	MT-102
13202	Leading-edge detection error	During M-Utility operation, only error for the leading-edge detection signal (SED1L, SED2L) is detected.	MT-108
13203	Start-point mask signal error	During M-Utility operation, only error for the start-point mask signal on the SCN12A board is detected.	8
13204	Polygon index signal error	During M-Utility operation, only error for the polygon index signal on the SCN12A board is detected.	8
13208	Laser drive current error	During M-Utility operation, the laser drive current value (LDIF) is more than 1.4 times the factory default value.	MT-106
13210	Polygon lock timeout	During bootup and routine processing, the polygon OK signal is not detected within 6 seconds after turn-ON of the polygonal mirror.	MT-112
13211	PMT analog power supply error	During M-Utility operation, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.	MT-110
13212	Laser light intensity error	During M-Utility operation, only error for the laser OK signal (LD1OKH, LD1OKL) is detected.	MT-106
13213	Polygon lock error	During M-Utility operation, only error for the polygon signal (POKL, PONL) is detected.	-
13214	Polygon rotation error	During M-Utility operation, only error for the polygon rotation detection function on the SCN12A board is detected.	-
13215	PLL function error	During M-Utility operation, only error for the PLL function on the SCN12A board is detected.	-
13216	Start-point interval error	During M-Utility operation, only error for the start-point interval function on the SCN12A board is detected.	-
13217	High-voltage power supply error	During M-Utility operation, only error for the high-voltage power supply signal (HVOKH, HVOKL) is detected.	MT-110

Error Code	Error Name	Occurrence Condition	Analysis Flow
13218	High-voltage command value error	During M-Utility operation, only error for the high-voltage command value diagnostics signal on the SCN12A board is detected.	-
13225	Reading status error	During M-Utility operation, only error for the VSYNC signal on the SCN12A board is detected.	-
13226	Operation line status error	During M-Utility operation, only error for the SEDTM/FCLKTMSED signal on the SCN12A board is detected.	-
13227	Reading IP size error	The IP of the size other than the input size is inserted for shading correction of the M-Utility, so that error is detected.	-
13228	Shading correction/polygon correction data error	Error for the correction calculation is detected in shading correction of the M-Utility.	-
13229	HVCNT value error	During M-Utility operation, an out-of-spec HV is inputted.	-
13240	Start-point mask signal warning	• The start-point mask signal issued from the SCN12A board varies by 0.02%, peak to peak. • The detection of 12241 error is done with 2% variations.	-
13260	Main-scan interval warning	• The FCLK signal issued from the SCN12A board varies by 0.05%, peak to peak. • The detection of 14261 or 14262 error is done with 0.2% variations.	-
13270	LDIF MAX update	During bootup self-diagnostic checks, it is detected that the LD drive current value varies by more than 5 mA. In order to adjust the insufficient amount of light due to degraded LD (to maintain the same amount of light), it is necessary to vary the LD drive current by more than 5 mA.	-
13289	Format adjustment calculation result error	In M-Utility, when image format adjustments are performed, the adjustment result is out of normal range.	-
13314	Cassette detection logic error	During routine processing, the SA2 is CLOSE (the cassette is detected), but the SA1 is OPEN (the shutter is closed).	MT-85
13326	HP return error during ejection	During cassette ejection, because the status of the sensor SA4 changes upon demagnetization of the motor that drives the IP removal unit, home-positioning of the IP removal unit is performed.	-
13355	Subscanning grip speed data update	During bootup and routine processing, the grip time for the driving shaft grip deviates by ±3% relative to its specified value, and the SZ2 transitions to OPEN, so that speed correction processing is performed.	MT-62
13386	Conveyance CMOS cleared	During bootup, when the conveyance-related backup memory information is checked, the result indicates that it has been cleared.	-

Error Code	Error Name	Occurrence Condition	Analysis Flow
13391	Dust removal mechanism lock (1)	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but the SZ5 does not transition from CLOSE to OPEN within the specified period of time (30 sec).	MT-68
13392	Dust removal mechanism lock (2)	During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but the SZ5 does not transition from OPEN to CLOSE within the specified period of time (30 sec).	MT-68
13405	Symbol table creation failure	The table used to register the function to the OS on the CPU12A board cannot be created.	8
13411	Serviceman reading mode	The conveyance mode of the erasure mode is set.	-
13501	Connection monitoring Com-Break detection	The communication between the CL and RU is disconnected.	-
13502	Connection monitoring Com-Down detection	Because no response is returned from the destination, the connection is disconnected once and connected again.	-
13503	Network connection error	Network connection is checked from the RU, but there is no response.	-
13504	ping execution error	In M-Utility, ping is executed, but an error results due to improper input value.	-
13738	IP loading before erasure initialization completion	Log indicating the IP processing under condition where, During bootup, the mechanical/scanner/electrical diagnostics are completed, but initialization of the erasure unit is not completed.	-
13800	Backup SRAM test error	An error is detected for the backup SRAM test in electrical utility.	8
13801	SDRAM test error	An error is detected for the SDRAM test in electrical utility.	8
13802	Checksum error	The data in the flash ROM (IPL or APPL portion) of the RU is corrupted.	8
13803	Flash ROM read/write error	An error is detected for the read/write test of the flash ROM in the electrical utility.	8
13804	CPU12A interrupt error	An error is detected for the CPU12A interrupt test in electrical utility.	8
13805	Network register error	An error is detected for the network register check in electrical utility.	8
13806	SCN12A register test error	An error is detected for the register read/write test on the SCN12A.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
13807	SCN12A interrupt error	An error is detected for the SCN12A interrupt test in electrical utility.	8
13808	SCN12A H8 communication error	An error is detected for the communication test with H8 of the SCN12A in electrical utility.	8
13809	SND12A board register error	An error is detected for the SND12A register test in electrical utility.	8
13810	Sensor test error	An error is detected for the sensor test in electrical utility.	8
13811	Panel LED error	An error is detected for the panel LED test in electrical utility.	8
13812	Solenoid error	An error is detected for the solenoid test in electrical utility.	8
13813	Pulse motor error	An error is detected for the pulse motor test in electrical utility.	8
13814	SND12A board interrupt error	An error is detected for the SND12A interrupt test in electrical utility.	8
13815	INV12A register error	An error is detected for the INV12A register check in electrical utility.	8
13816	Erasure lamp test error	An error is detected for the erasure lamp test in electrical utility.	8
13817	Image processing CPU SDRAM test error	An error is detected for the image processing CPU SDRAM test in electrical utility.	8
13818	Image processing FIFO test error	An error is detected for the image processing CPU FIFO test in electrical utility.	8
13819	Barcode communication error	An error is detected for the barcode communication test in electrical utility.	8
13820	Barcode data read test error	An error is detected for the barcode reading test in electrical utility.	8
13821	Power supply monitoring register error	An error is detected for the power supply monitoring register check in electrical utility.	8
14101	Reset cancel error during image processing CPU initialization	During bootup, the reset state of the sub-CPU of the CPU12A board is canceled, but a timeout error occurs, still in the reset state.	8
14102	Timeout error during image processing CPU initialization	During bootup, the reset state of the sub-CPU of the CPU12A board is canceled, but a timeout error occurs, still in the reset state.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
14103	Control program area error during image processing CPU initialization	During bootup, the reset state of the sub-CPU of the CPU12A board is canceled, but a timeout error occurs in the control program area error state (image processing APPL checksum error is detected), while waiting for a predetermined period of time until the status of the sub-CPU becomes idle.	8
14104	FIFO test error during image processing CPU initialization	During bootup, because the sub-CPU on the CPU12A board is booted normally, a test command for FIFO (memory for transaction of image data from the sub-CPU) is sent to the sub-CPU to execute diagnostics, but an error is found in 32770 counts of data received by the main CPU.	8
14105	Image memory test error during image processing CPU initialization	During bootup, because the sub-CPU on the CPU12A board is booted normally, an image memory test command is sent to the sub-CPU to execute diagnostics, but an error results.	8
14106	SCN bus test error during image processing initialization (1)	During device initialization, the sub-CPU boots normally, but the sub-CPU detects an error as a result of performing an image data transfer test from the SCN12A board to the sub-CPU on the CPU12A board by use of the image data test path.	6.3
14107	SCN bus test error during image processing initialization (2)	During device initialization, the sub-CPU boots normally, but the sub-CPU detects an error as a result of performing an image data transfer test from the SCN12A board to the sub-CPU on the CPU12A board by use of the image data test path.	6.3
14108	Abort error during image processing CPU initialization	During bootup, the sub-CPU that is in the reset state is reset-canceled by software, but the status of the sub-CPU times out waiting for the idle state. Or, the status of the sub-CPU becomes uncontrollable.	8
14122	Image processing CPU sequence error	During routine processing, in order to execute image processing, an image memory clear command, image processing command, image reoutput command, etc. are sent to the sub-CPU on the CPU12A board, but a sequence error is detected by the main CPU.	6.3
14123	Image processing CPU parameter error	During routine processing, because an IP is loaded, an image processing command or image reoutput command is sent to the image processing section to execute the processing, but the sub-CPU detects a parameter error. (The image processing section detects an out-of-spec command.)	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
14124	Image processing CPU out-of-spec command error	During routine processing, because an IP is loaded, an image processing command or image reoutput command is sent to the image processing section to execute the processing, but the sub-CPU detects a parameter error. (The image processing section detects an out-of-spec command.)	8
14125	Image processing CPU command reject error	During routine processing, because an IP is loaded, an image processing command or image reoutput command is sent to the image processing section to execute the processing, but the sub-CPU reports the reject status.	8
14211	PMT analog power supply error During bootup	During bootup, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.	MT-110
14241	Scanner control board error during bootup (1)	During bootup, error is detected for the PLL function, polygon rotation function, and start-point interval function on the SCN12A board.	14.2 14.3
14242	Scanner control board error during bootup (2)	During bootup, because the PMT high-voltage value is not set correctly on the SCN12A board, error is detected for the high-voltage command diagnostics.	14.5
14251	Photomultiplier control board error during bootup (1)	During bootup, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected (detail code: 008200). Note that if the HV is OFF, the detail code is 008000.	MT-110
14261	Polygon rotation error (1)	During bootup, error for the polygon lock signal (PONL, POKL) is detected so that the polygonal mirror function is disabled. The start-point detection (SYN) and leading-edge detection (SED) are also disabled (detail code: D03403).	MT-112

Error Code	Error Name	Occurrence Condition	Analysis Flow
14271	Laser unlit error During bootup	• During bootup, the laser (LDD) and start-point detection (SYN) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: 815403). • During bootup, the laser (LDD), start-point detection (SYN), and leading-edge detection (SED) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: C15403). • During bootup, error for the laser drive current value (LDIF) occurs and the start-point detection (SYN) and leading-edge detection (SED) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: C04003).	MT-116
14281	Start-point detection error During bootup (1)	• During bootup, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801C03). Alternatively, the disabled state of the start-point detection (SYN) function and error for the PLL function on the SCN12A board are detected (detail code: 800C03). Alternatively, during routine processing, the disabled state of the start-point-detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801401). • During bootup, the start-point detection (SYN) function is disabled (detail code: 801402). Alternatively, the start-point detection (SSH, SSL) cannot be performed (detail code: 800002).	MT-102
14282	Start-point detection error during bootup (2)	During bootup, only error for the start-point interval function on the SCN12A board is detected (detail code: 000400). Alternatively, error for the start-point interval function and polygon rotation detection function on the SCN12A board is detected (detail code: 001400).	14.3
14283	Scanning optics unit board error During bootup	During bootup, the laser (LDD), start-point detection (SYN), and leading-edge detection (SED) functions are disabled due to laser failure or disconnected connector (detail code: C05401).	MT-106

Error Code	Error Name	Occurrence Condition	Analysis Flow
14295	Scanner send/receive error	During bootup, routine processing, or maintenance utility, control communication is conducted between the CPU12A board and SCN12A board, but scanner unit error is detected, so that control communication is not completed normally.	6.3
14296	Scanner transmission sum check error	During bootup, routine processing, or maintenance utility, communication between the CPU12A board and SCN12A board can be established, but sum check error from the SCN12A board is detected.	6.3
14297	Scanner receive size error	During bootup, routine processing, or maintenance utility, communication between the CPU12A board and SCN12A board can be established, but data size error from the SCN12A board is detected.	6.3
14298	Before-reading scanner retry error	During routine processing, because the scanner-related error is detected, the IP is returned to the cassette and the scanner is initialized.	MT-104
14299	Error for scanner, etc.	For self-diagnostics prior to reading during routine processing, a combination of errors that should not have logically occurred were generated.	-
14310	Cassette hold failure retry	During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned OFF, the SA3 transitions to CLOSE, so that retries (within five times) are performed.	MT-71
14312	Cassette hold release failure retry	During routine processing, the SolA1 is turned ON to release the cassette hold, but the SA3 does not transition to CLOSE within the specified period of time, so that retries (within five times) are performed.	MT-71
14315	Suction cup HP detection preparation positioning retry	During bootup or routine processing, the MA1 is driven (clockwise), but the SA4 does not transition to CLOSE within the specified period of time.	MT-57
14316	Suction cup HP detection preparation return retry	During bootup or routine processing, the MA1 is driven (counterclockwise), but the SA4 does not transition to OPEN within the specified period of time.	MT-57
14317	Suction cup HP detection retry	During bootup or routine processing, the MA1 is driven (one-pulse driving) for home positioning, but the SA4 does not transition from OPEN to CLOSE.	MT-57
14319	Feed IP suction failure retry	During routine processing, the MA1 is driven (counterclockwise) and the PA1 is turned ON to perform IP feed leak, but the SA5 transitions to OPEN, so that retries (within three times) are performed.	MT-74

Error Code	Error Name	Occurrence Condition	Analysis Flow
14320	Feed IP drop retry	During bootup and routine processing, the MA1 and MB1 are driven (clockwise) to feed the IP from the cassette, but the SA5 transitions to OPEN at the time when the IP is gripped by the rollers, so that a retry (within one time) is performed.	MT-74
14321	Feed IP grip failure retry	During bootup and routine processing, the MB1 is driven (clockwise) to perform IP feed leak and conveyance, but the SB1 transitions to OPEN, so that retries (within three times) are performed.	MT-74
14322	Feed conveyance retry	During routine processing, the MB1 and MC3 are driven (clockwise) to perform IP high-speed conveyance, but the SC3 transitions to OPEN, so that retries (within three times) are performed.	MT-74
14323	Length-measurement conveyance retry	During routine processing, the MB1 and MC3 are driven (clockwise) to determine the IP size, but the SB1 transitions to OPEN, so that retries (within three times) are performed.	MT-76
14324	Barcode reading retry	During routine processing, because an attempt to read the barcode for feed conveyance fails, retries (within three times) are performed.	MT-87
14331	Side-positioning HP detection preparation positioning retry	During bootup or routine processing, the MC1 is driven (clockwise), but the SC1 does not transition to CLOSE.	MT-58
14332	Side-positioning HP detection preparation return retry	During bootup or routine processing, the MC1 is driven (counterclockwise), but the SC1 does not transition to OPEN.	MT-58
14333	Side-positioning HP detection retry	During bootup or routine processing, the MC1 is driven (one-pulse driving) to perform home positioning, but the SC1 does not transition from OPEN to CLOSE.	MT-58
14335	Side-positioning grip HP detection preparation positioning retry	During bootup or routine processing, the MC2 is driven (counterclockwise), but the SC2 does not transition to CLOSE.	MT-59
14336	Side-positioning grip HP detection preparation return retry	During bootup or routine processing, the MC2 is driven (clockwise), but the SC2 does not transition to OPEN.	MT-59
14337	Side-positioning grip HP detection retry	During bootup or routine processing, the MC2 is driven (one-pulse driving) to perform home positioning, but the SC2 does not transition from OPEN to CLOSE.	MT-59

Error Code	Error Name	Occurrence Condition	Analysis Flow
14340	IP stopper protrusion retry	During bootup or routine processing, the SolZ1 is turned ON to protrude the stopper, but the SZ4 does not transition to OPEN, so that retries (within five times) are performed.	MT-60
14341	IP stopper retreat retry	During bootup, routine processing, U-Utility dust removal operation, and shutdown processing, the SolZ1 is turned OFF to retreat the stopper, but the SZ4 does not transition to CLOSE, so that retries (within 5 times) are performed.	MT-60
14346	Driving shaft grip error	During bootup, the MZ2 is driven to grip the driving shaft, but the SZ2 does not transition from CLOSE to OPEN, so that a retry (within one time) is performed.	MT-62
14347	Driven shaft grip error	During bootup and routine processing, the MZ2 is driven to grip the driven shaft, but the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.	MT-64
14348	Both grip release error	During bootup and routine processing, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE, so that a retry (within one time) is performed.	MT-62
14349	Driven shaft grip release error	During bootup, the MZ2 is driven to release the driven shaft grip, but the SZ3 does not transition to OPEN, so that a retry (within one time) is performed.	MT-64
14354	Initialization grip movement (1) error	During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to OPEN, so that a retry (within one time) is performed.	MT-62
14355	Initialization grip movement (2) error	During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to CLOSE or the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.	MT-62
14356	Ejection grip error	During bootup and routine processing, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.	MT-64
14357	No-load running error	During bootup and routine processing, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN, so that a retry (within one time) is performed.	MT-64
14372	Load IP suction failure retry	During routine processing, the PA1 is tuned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN within the specified period of time, so that retries (within three times) are performed.	MT-82

Error Code	Error Name	Occurrence Condition	Analysis Flow
14373	Load IP drop retry	During routine processing, the PA1 is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN at the time when the IP is released, so that retries (within three times) are performed.	MT-82
18740	Inerasable cassette ejection	Because 11731, 11732, 11737, 11751, 11757, or 11767 occurs so that temperature control is disabled, the mode shifts to the no-erasure mode with a message displayed. The IP that is read while in the no-erasure mode is not erased.	-
18741	Incomplete erasure	Because 12736, 12756, or 12766 occurs so that a single lamp is unlit, the mode shifts to the erasure time extension mode where the erasure time is extended twice. The IP that is read while in the erasure time extension mode is erased with the extended erasure time.	6.4
18742	Erasure temporarily disabled mode	12733 or 12753 occurs, and the temperature sensor (TSB1) detects an abnormal level of temperature. • The mode temporarily shifts to the no-erasure mode. • The IP that is read while in the no-erasure mode is not erased.	-
19030	Driver registration error	A driver cannot be registered to the OS on the CPU12A board.	8
19031	Driver unregistered	During bootup, a device is created without registering its driver on the CPU12A board.	8
19032	Device creation error	During bootup and routine processing, an OS system call fails.	8
19034	FPMC error	During bootup and routine processing, a FPMC driver error status is detected for the communication from the SNS12A board to the CPU12A board.	6.2
19038	Image processing CPU status error	During bootup and routine processing, the main CPU detects an error in the status of the sub-CPU.	8
19039	Device open error	During bootup and routine processing, when the motor or the like is activated, the device specified cannot be opened.	8
19080	OS system call error (1)	During bootup or maintenance utility bootup, an OS system call fails.	8

Error Code	Error Name	Occurrence Condition	Analysis Flow
19081	OS system call error (2)	During bootup or maintenance utility bootup, an OS system call fails.	8
19082	OS system call error (3)	During bootup or maintenance utility bootup, an OS system call fails.	8
19083	OS system call error (4)	During bootup or maintenance utility bootup, an OS system call fails.	8
19084	OS system call error (5)	During bootup or maintenance utility bootup, an OS system call fails.	8
19085	OS system call error (6)	During bootup or maintenance utility bootup, an OS system call fails.	8
19086	OS system call error (7)	During bootup or maintenance utility bootup, an OS system call fails.	8
19087	OS system call error (8)	During bootup or maintenance utility bootup, an OS system call fails.	8
19088	OS system call error (9)	During bootup or maintenance utility bootup, an OS system call fails.	8
19089	OS system call error (10)	During bootup or maintenance utility bootup, an OS system call fails.	8
19090	Software logic error	An abnormal case that is unthinkable for the RU software is encountered.	8
19091	Error returned by driver	A return signal of the driver called by the application is an error. The detail of the error is notified within the driver software.	8
19094	Socket error	A network connection between the RU and CL is established. Various types of error occur for the socket communication.	6.1

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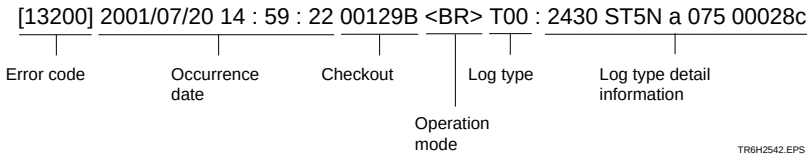
3. Detail Code

3.1 How to Understand Detail Code

The error log contains the operation mode of the RU and detail code associated with the error that occurred.

This section describes the detail code display format and meaning of each item.

■ Display of Detail Code (A05 or Later)



■ Meaning of Detail Code (A05 or Later)

● Operation mode

Represents the RU operation status and CL-RU communication status upon occurrence of an error.

◇ ***REFERENCE*** ◇

The first and second letters represent the RU operation status and CL-RU communication status, respectively.

< B R >

CL-RU communication status

Display	W (Wait)	R (Run)	T (Terminate)
Meaning	An error occurred immediately after startup, and the connection is broken.	The connection has been completed at the time of error occurrence.	An error occurred during shutdown processing, and the connection was

RU operation status

Display	S (Start)	B (Busy)	I (Idle)
Meaning	An error occurred immediately after startup of the RU.	An error occurred during IP conveyance or during IP processing.	An error occurred while the RU is in idle state.

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● Log type

Log types include the conveyance-related log, scanner-related log, and configuration-related log.

The causes of error occurrence may be narrowed down by the log type.

T[XX]:

- 00: Conveyance-related log
- 01: Scanner-related log
- 02: Configuration-related log

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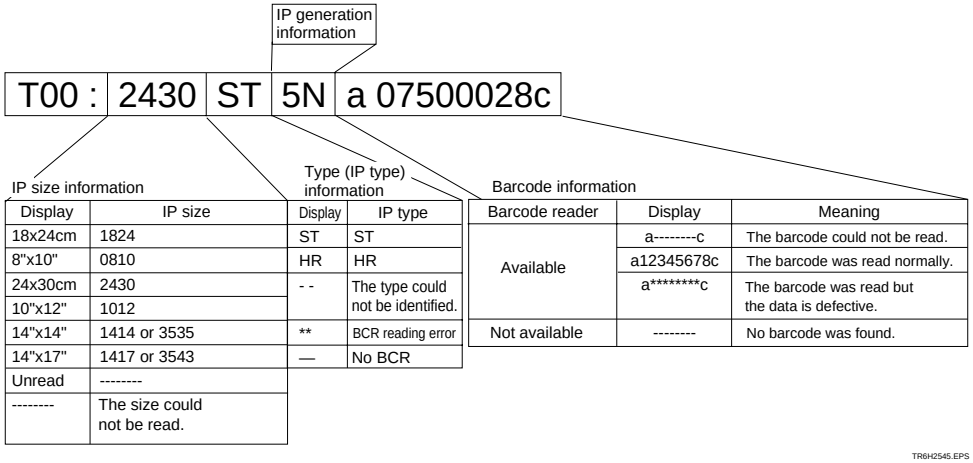
• T00: Conveyance-related log

For the conveyance-related log, the IP size, type (IP type), IP generation information, and barcode information are displayed.



Display	IP size
18x24cm	1824
8"x10"	0810
24x30cm	2430
10"x12"	1012
14"x14"	1414 or 3535
14"x17"	1417 or 3543
Unread	--------
--------	The size could not be read.

Display	IP type
ST	ST
HR	HR
- -	The type could not be identified.
**	BCR reading error
—	No BCR

Barcode reader	Display	Meaning
Available	a--------c	The barcode could not be read.
	a12345678c	The barcode was read normally.
	a********c	The barcode was read but the data is defective.
Not available	--------	No barcode was found.

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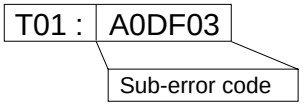
• T01: Scanner-related log

For the scanner-related log, the sub-error code is displayed.

When the sub-error code is displayed, refer to the scanner error detail code and perform error log analysis.

☞ “3.2 Scanner Error Detail Code, ■ Meaning of the Six-Digit Detail Code”



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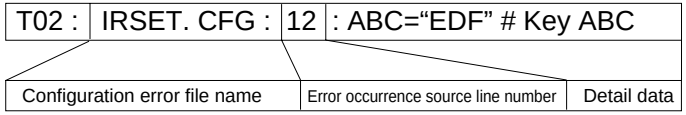
◇ ***REFERENCE*** ◇

If there is no sub-error code, the sub-error code field displays “– – – – –”.

• T02: Configuration-related log

For the configuration-related log, the configuration error file name, error occurrence source line number, and detail data are displayed.



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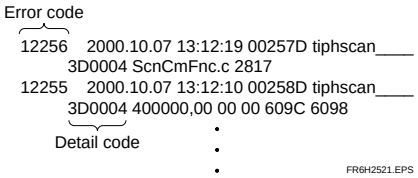
3.2 Detail Codes for Scanner Errors

Scanner errors are detected by checking a plurality of scanner I/O states and finding a combination of defects and/or failures.

Each I/O status at the time of error occurrence can be identified by checking the detail code in the error log.

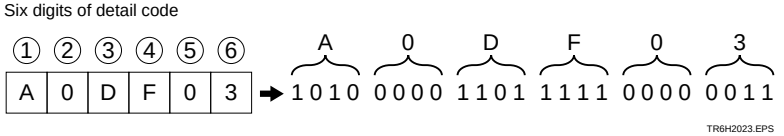
■ Display of Detail Code (A04 or Earlier)

The detail code is displayed in six hexadecimal digits, located in the error log as shown below.



■ Meaning of Six-Digit Detail Code

To each bit of a six-digit detail code is assigned an object to be checked during error check, so that a bit value of “1” indicates that the object to checked is in error.



NO.		Object to be checked	Signal source
①	1	Start-point detection sensor	SYN12A board
	2	Leading-edge detection sensor	SED12A board
	3	Start-point mask signal	SCN12A board
	4	Polygon index	POL (polygon)
②	1	–	–
	2	–	–
	3	–	–
	4	LD drive current	LDD12A board
③	1	PMT analog power supply	PMT12A board
	2	Laser light intensity error	LDD12A board
	3	Polygon lock	POL (polygon)
	4	Polygon rpm	SCN12A board
④	1	PLL function	SCN12A board
	2	Start-point period	SYN12A board
	3	High-voltage power supply	PMT12A board
	4	High-voltage command value diagnostics	SCN12A board
⑤	1	–	–
	2	–	–
	3	–	–
	4	–	–
⑥	1	–	–
	2	–	–
	3	Reading status error	SCN12A board
	4	Operation line status error	SCN12A board

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Hexadecimal	Value of bit			
	1	2	3	4
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
A	1	0	1	0
B	1	0	1	1
C	1	1	0	0
D	1	1	0	1
E	1	1	1	0
F	1	1	1	1

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4. Error Code Analysis Flow (Mechanism)

10300, 10302, 12302

10300 IP Sensor Logical Inconsistency

During bootup, the remaining IP is ejected, but the sensor having logical inconsistency for its IP sensor result is detected.

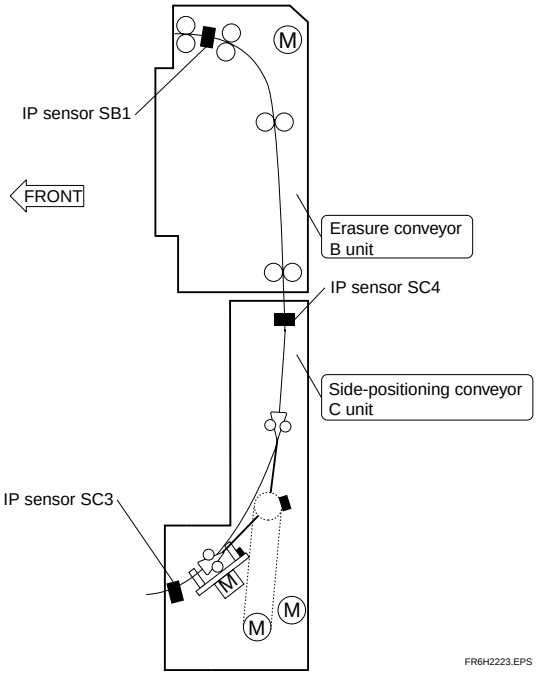
10302 Broken wire sensor detected

During bootup, the result of IP search detects the presence of an IP, but the backup memory information indicates that there is no IP in the machine. The backup memory has a record indicating that the IP conveyance was performed before power recovery.

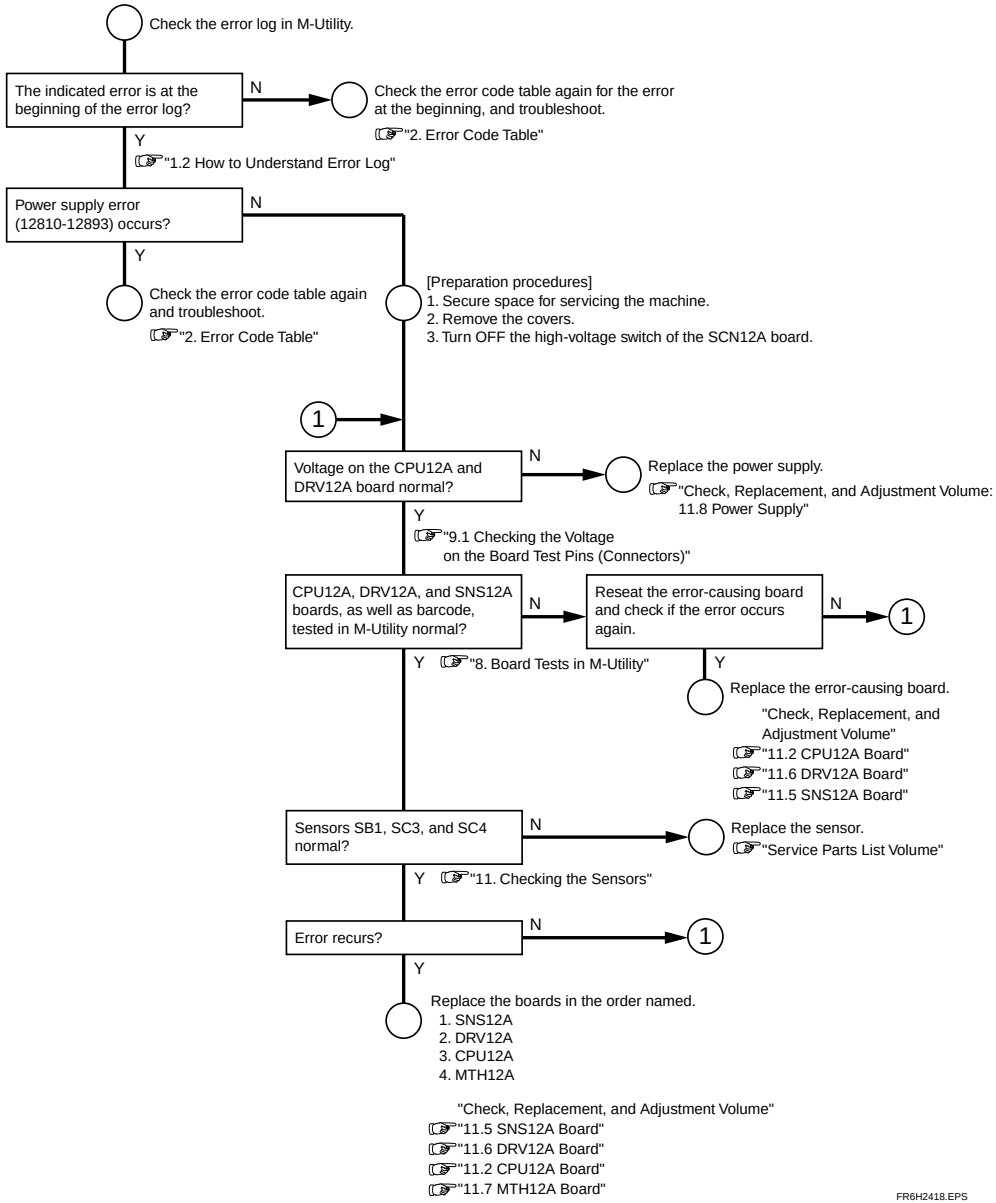
12302 IP location information logical failure

During bootup, the result of IP search indicates the presence of an IP, but the backup memory information indicates that there is no IP in the machine. Because there is no result of clearing the CMOS, it is logically inconsistent.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SB1, SC3, and SC4 normal?
N
Replace the sensor.
☞"Service Parts List Volume"
Y ☞"11. Checking the Sensors"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
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10301, 12301

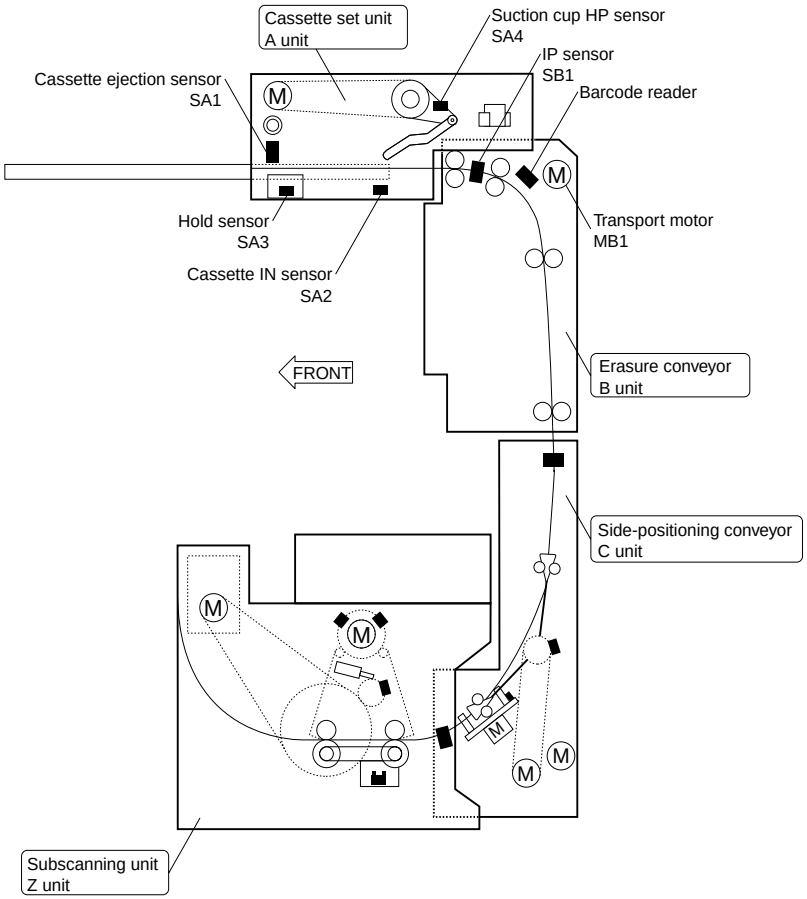
10301 Sensor error

During bootup, the sensor is turned OFF after the timeout of the mechanical operation is detected, but the sensor does not transition to CLOSE.

12301 Sensor error

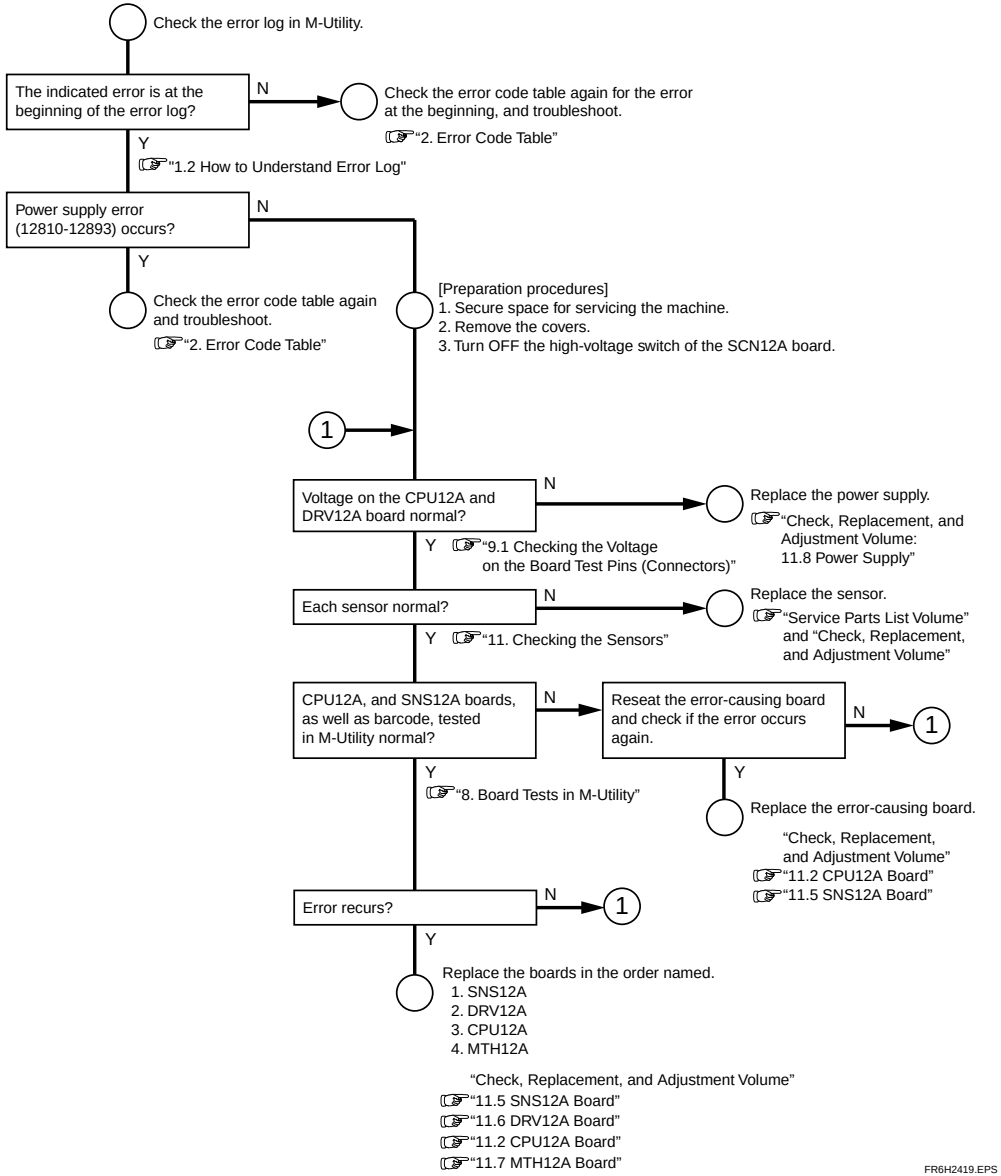
During routine processing, the sensor is turned OFF after the timeout of the mechanical operation is detected, but the sensor does not transition to CLOSE.

■ I/O Locations



FR6H2205.EPS

■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Each sensor normal?
N
Replace the sensor.
☞"Service Parts List Volume" and "Check, Replacement, and Adjustment Volume"
Y ☞"11. Checking the Sensors"
CPU12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.5 SNS12A Board"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

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10303, 10304, 10305, 11303, 12304, 12305

10303 IP initialization search error

During bootup, the result of location information confirmation for IP search indicates the absence of an IP, but the backup memory information indicates the presence of an IP in the machine. System shutdown is selected via user intervention.

10304 IP conveyance error during bootup (1)

During bootup, the IP search detects the presence of an IP. The CLOSE state of the SB1, SC3, and SC4 is detected, and the MB1 and MC3 are driven, but any of the sensors does not transition to OPEN. The backup memory has a record indicating the presence of an IP in the machine.

10305 IP conveyance error during bootup (2)

During bootup, the IP search detects that there is an IP in the machine that is difficult to convey.

The backup memory has a record indicating the absence of an IP in the machine. IP conveyance is not performed before power-OFF. It is presumed that the backup memory has been cleared.

11303 IP initialization search error

During bootup, the IP search determines that there is no IP.

However, the conveyance backup memory has a record indicating the presence of an IP in the machine for routine processing.

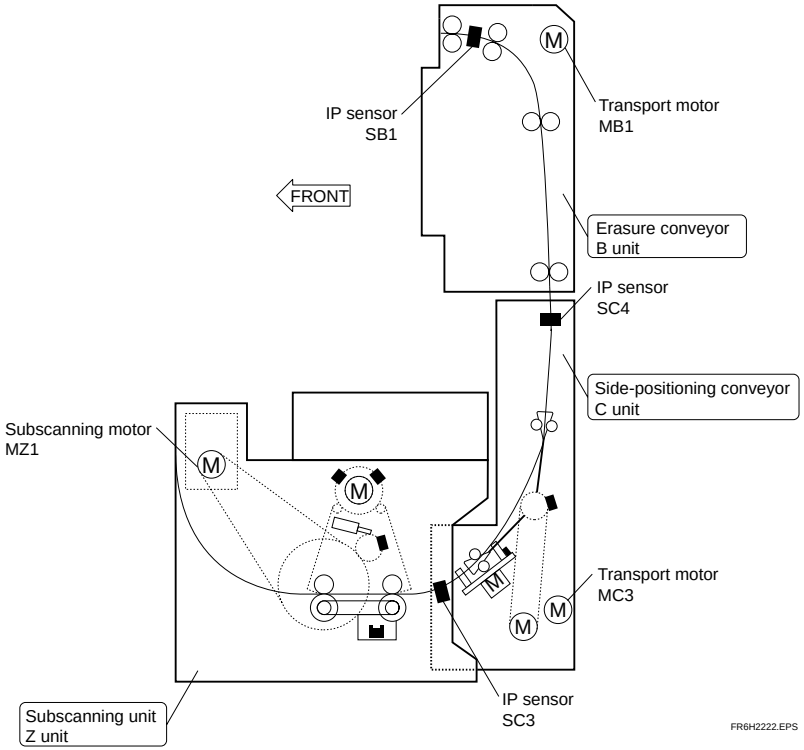
12304 IP movement error at scanner unit During bootup

During bootup, the MB1, MC3, and MZ1 are driven (clockwise) for IP search, but the SC3 does not transition to OPEN within the specified period of time.

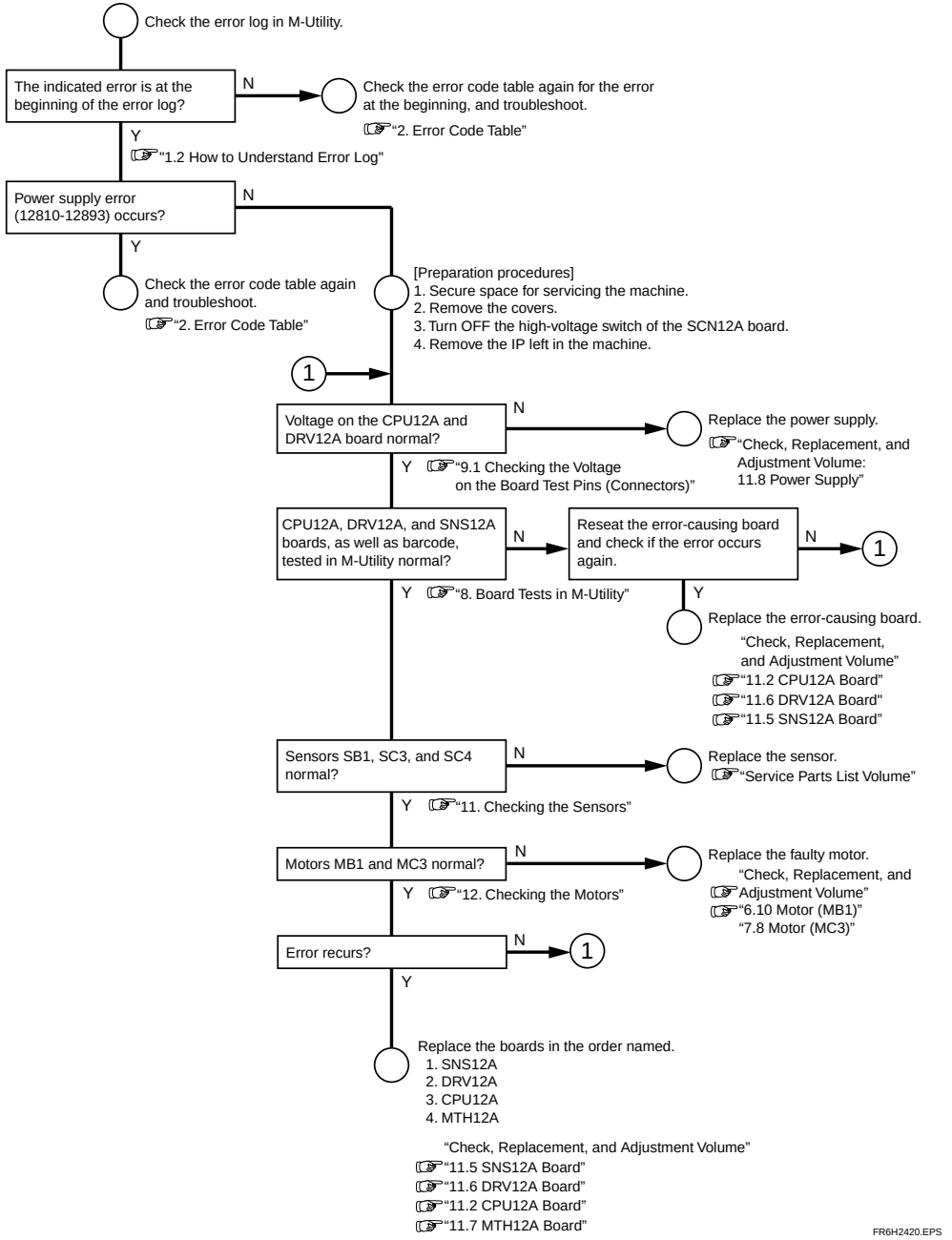
12305 IP movement error at erasure conveyor/side-positioning conveyor During bootup

During bootup, the MB1 and MC3 are driven (clockwise) for IP search, but the SB1 or SC4 does not transition to CLOSE within the specified period of time.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
4. Remove the IP left in the machine.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SB1, SC3, and SC4 normal?
N
Replace the sensor.
☞"Service Parts List Volume"
Y ☞"11. Checking the Sensors"
Motors MB1 and MC3 normal?
N
Replace the faulty motor.
"Check, Replacement, and Adjustment Volume"
☞"6.10 Motor (MB1)"
"7.8 Motor (MC3)"
Y ☞"12. Checking the Motors"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2420.EPS

10306, 10307

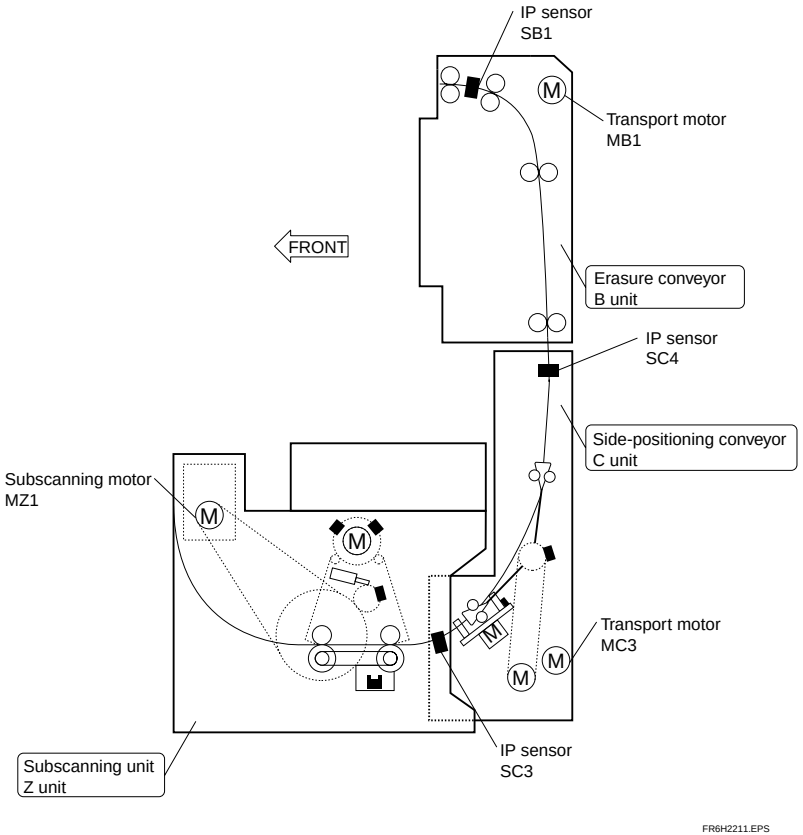
10306 IP positioning error at side-positioning conveyor during bootup

During bootup, the MB1 and MC3 are driven (clockwise) to perform side-positioning operation for remaining IP processing, but the SC3 does not transition to CLOSE within the specified period of time.

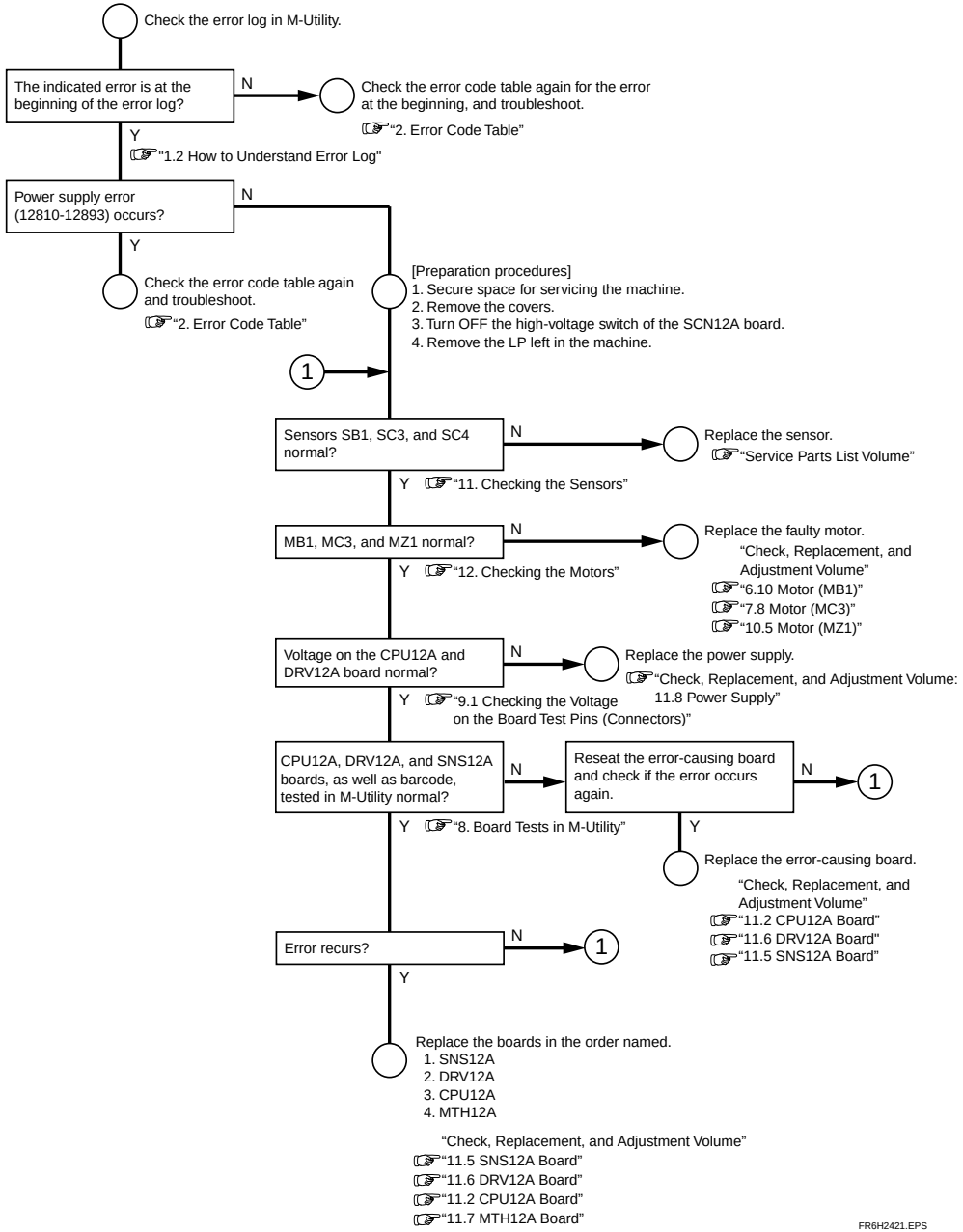
10307 Length-measurement conveyance error during bootup

During bootup, the MZ1, MC3, and MB1 are driven (counterclockwise) to measure the IP size for remaining IP processing, but the SC3 does not transition to CLOSE within the specified period of time. Alternatively, it transitions to CLOSE but not to OPEN.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
4. Remove the LP left in the machine.
1
Sensors SB1, SC3, and SC4 normal?
N
Replace the sensor.
☞"Service Parts List Volume"
Y ☞"11. Checking the Sensors"
MB1, MC3, and MZ1 normal?
N
Replace the faulty motor.
"Check, Replacement, and Adjustment Volume"
☞"6.10 Motor (MB1)"
☞"7.8 Motor (MC3)"
☞"10.5 Motor (MZ1)"
Y ☞"12. Checking the Motors"
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2421.EPS

10318, 12318, 12326, 14315, 14316, 14317

10318 Suction cup HP operation error

During bootup or routine processing, because error (14315, 14316, 14317) is detected, retries (four times or more) are performed, but error (fatal error) results.

12318 Suction cup return error

During bootup and routine processing, SA4 does not transition to CLOSE for suction cup HP check.

12326 HP return error during ejection

During routine processing, the MA1 is driven (counterclockwise) to perform suction cup home positioning after the cassette is ejected, but the SA4 does not transition to CLOSE.

14315 Suction cup HP detection preparation positioning retry

During bootup or routine processing, the MA1 is driven (clockwise), but the SA4 does not transition to CLOSE within the specified period of time.

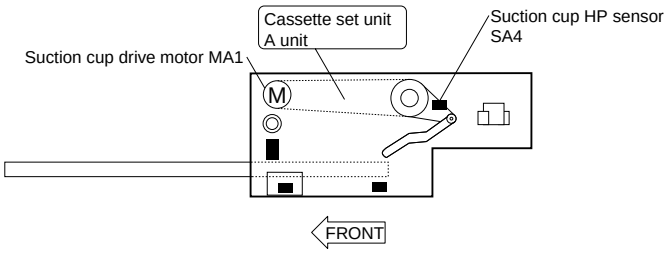
14316 Suction cup HP detection preparation return retry

During bootup or routine processing, the MA1 is driven (counterclockwise), but the SA4 does not transition to OPEN within the specified period of time.

14317 Suction cup HP detection retry

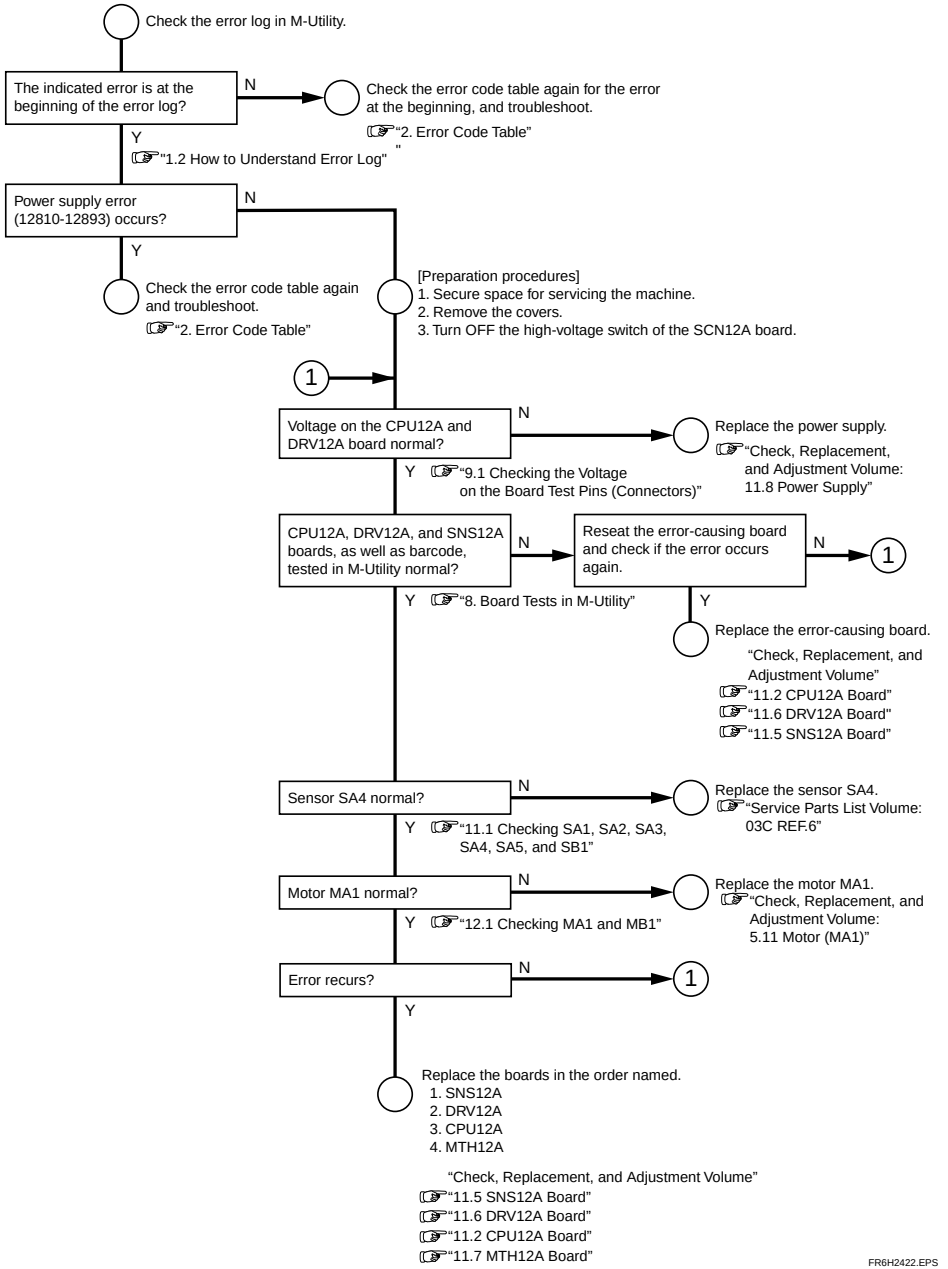
During bootup or routine processing, the MA1 is driven (one-pulse driving) for home positioning, but the SA4 does not transition from OPEN to CLOSE.

■ I/O Locations



FR6H2206.EPS

■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA4 normal?
N
Replace the sensor SA4.
☞"Service Parts List Volume: 03C REF.6"
Y
☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Motor MA1 normal?
N
Replace the motor MA1.
☞"Check, Replacement, and Adjustment Volume: 5.11 Motor (MA1)"
Y
☞"12.1 Checking MA1 and MB1"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

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10334, 12334, 14331, 14332, 14333

10334 Side-positioning HP operation error

During bootup or routine processing, because error (14331, 14332, 14333) is detected, retries (four times or more) are performed, but error (fatal error) results.

12334 Side-positioning operation error

During routine processing, the MC1 is driven (clockwise) to perform side-positioning home positioning, but the SC1 does not transition to CLOSE.

14331 Side-positioning HP detection preparation positioning retry

During bootup or routine processing, the MC1 is driven (clockwise), but the SC1 does not transition to CLOSE.

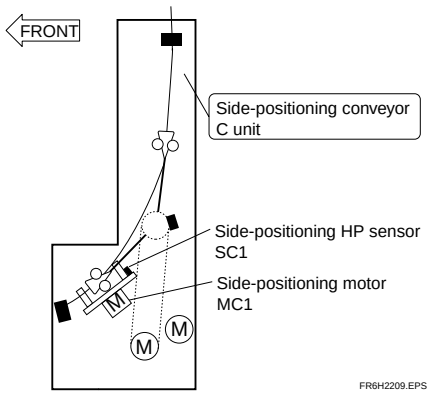
14332 Side-positioning HP detection preparation return retry

During bootup or routine processing, the MC1 is driven (counterclockwise), but the SC1 does not transition to OPEN.

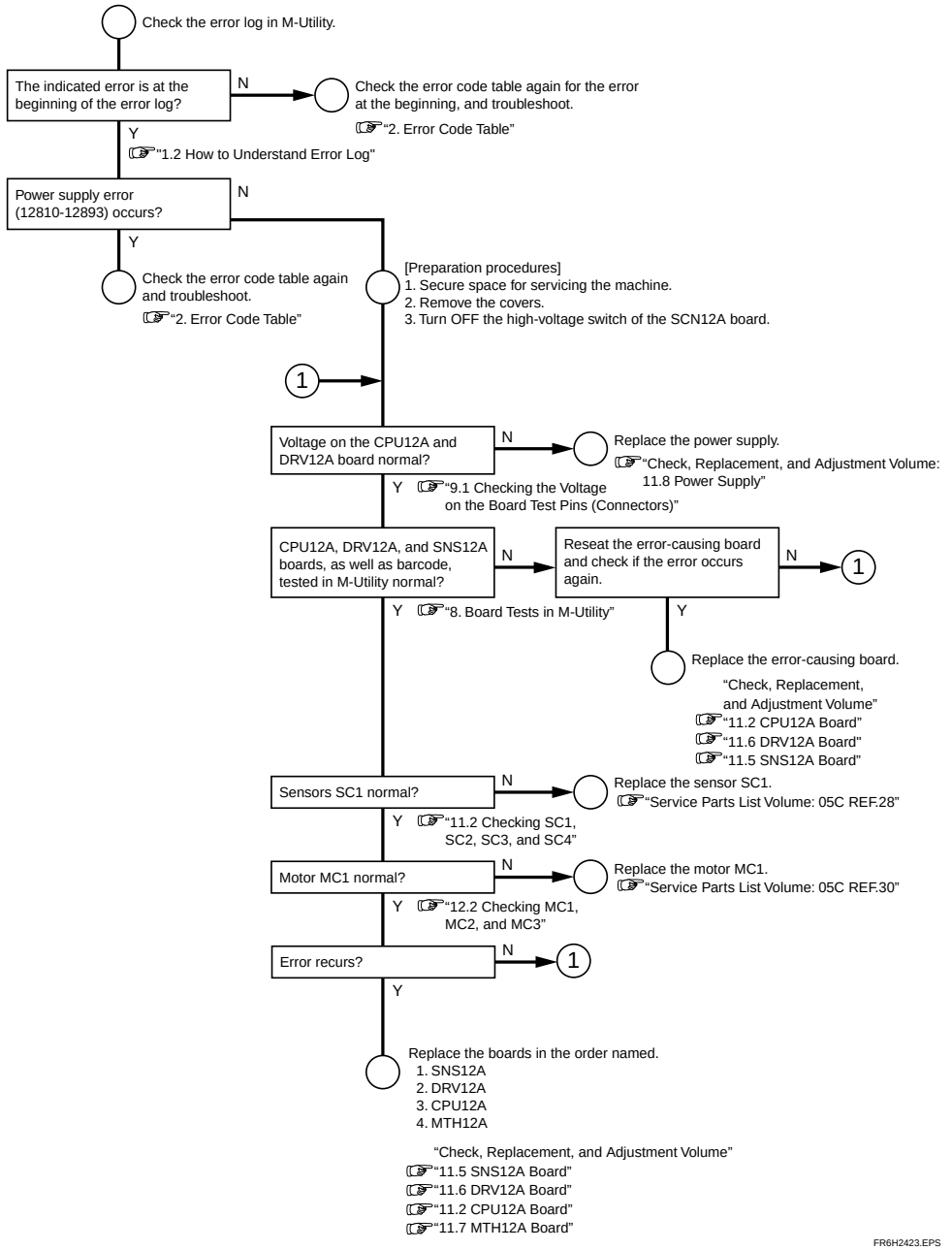
14333 Side-positioning HP detection retry

During bootup or routine processing, the MC1 is driven (one-pulse driving) to perform home positioning, but the SC1 does not transition from OPEN to CLOSE.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SC1 normal?
N
Replace the sensor SC1.
☞"Service Parts List Volume: 05C REF.28"
Y ☞"11.2 Checking SC1, SC2, SC3, and SC4"
Motor MC1 normal?
N
Replace the motor MC1.
☞"Service Parts List Volume: 05C REF.30"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2423.EPS

10338, 12338, 14335, 14336, 14337

10338 Side-positioning grip HP operation error

During bootup or routine processing, because error (14335, 14336, 14337) is detected, retries (four times or more) are performed, but error (fatal error) results.

12338 Side-positioning grip operation error

During routine processing, the MC2 is driven (counterclockwise) to perform side-positioning grip home positioning, but the SC2 does not transition to CLOSE.

14335 Side-positioning grip HP detection preparation positioning retry

During bootup or routine processing, the MC2 is driven (counterclockwise), but the SC2 does not transition to CLOSE.

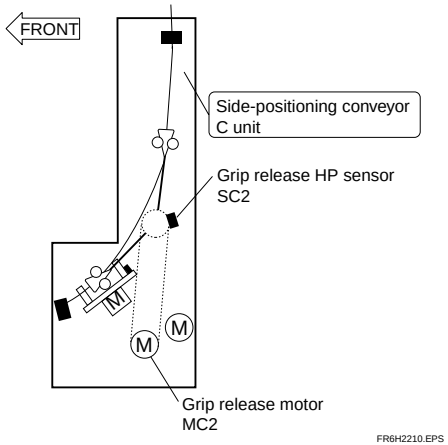
14336 Side-positioning grip HP detection preparation return retry

During bootup or routine processing, the MC2 is driven (clockwise), but the SC2 does not transition to OPEN.

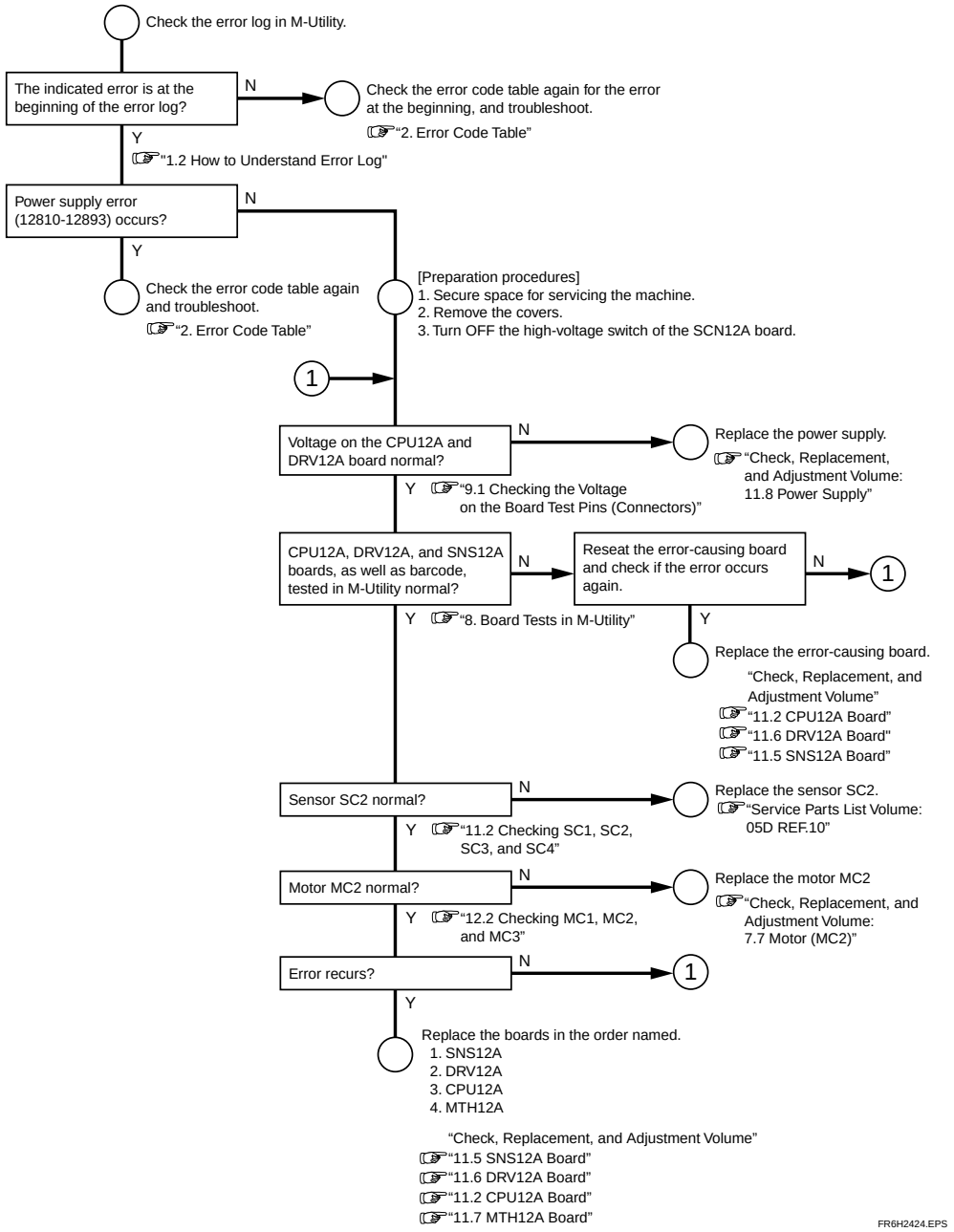
14337 Side-positioning grip HP detection retry

During bootup or routine processing, the MC2 is driven (one-pulse driving) to perform home positioning, but the SC2 does not transition from OPEN to CLOSE.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SC2 normal?
N
Replace the sensor SC2.
☞"Service Parts List Volume: 05D REF.10"
Y ☞"11.2 Checking SC1, SC2, SC3, and SC4"
Motor MC2 normal?
N
Replace the motor MC2
☞"Check, Replacement, and Adjustment Volume: 7.7 Motor (MC2)"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2424.EPS

10340, 10341, 11340, 11341, 14340, 14341

■ Error Occurrence Conditions

10340 IP stopper protrusion error

During bootup, the SolZ1 is turned ON to protrude the stopper, but the SZ4 does not transition to OPEN within the specified period of time. Retries (six times or more) are performed, but error results.

10341 IP stopper retreat error

During bootup and shutdown processing, the SolZ1 is turned OFF to retreat the stopper, but the SZ4 does not transition to CLOSE within the specified period of time. Retries (six times or more) are performed, but error results.

11340 IP stopper protrusion error

During routine processing, the SOLZ1 is turned ON to protrude the IP stopper after IP feed leak, but the SZ4 transitions to CLOSE. SZ4 checks are retried (two times or more), but error results.

11341 IP stopper retreat error

During routine processing and U-Utility dust removal operation, the SOLZ1 is turned OFF to retreat the IP stopper, but the SZ4 transitions to OPEN. SZ4 checks are retried (six times or more), but error results.

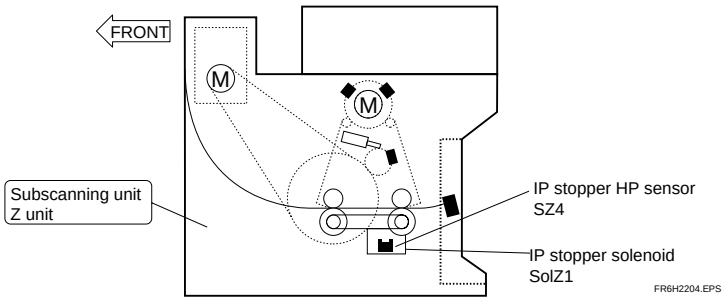
14340 IP stopper protrusion retry

During bootup or routine processing, the SolZ1 is turned ON to protrude the stopper, but the SZ4 does not transition to OPEN, so that retries (within five times) are performed.

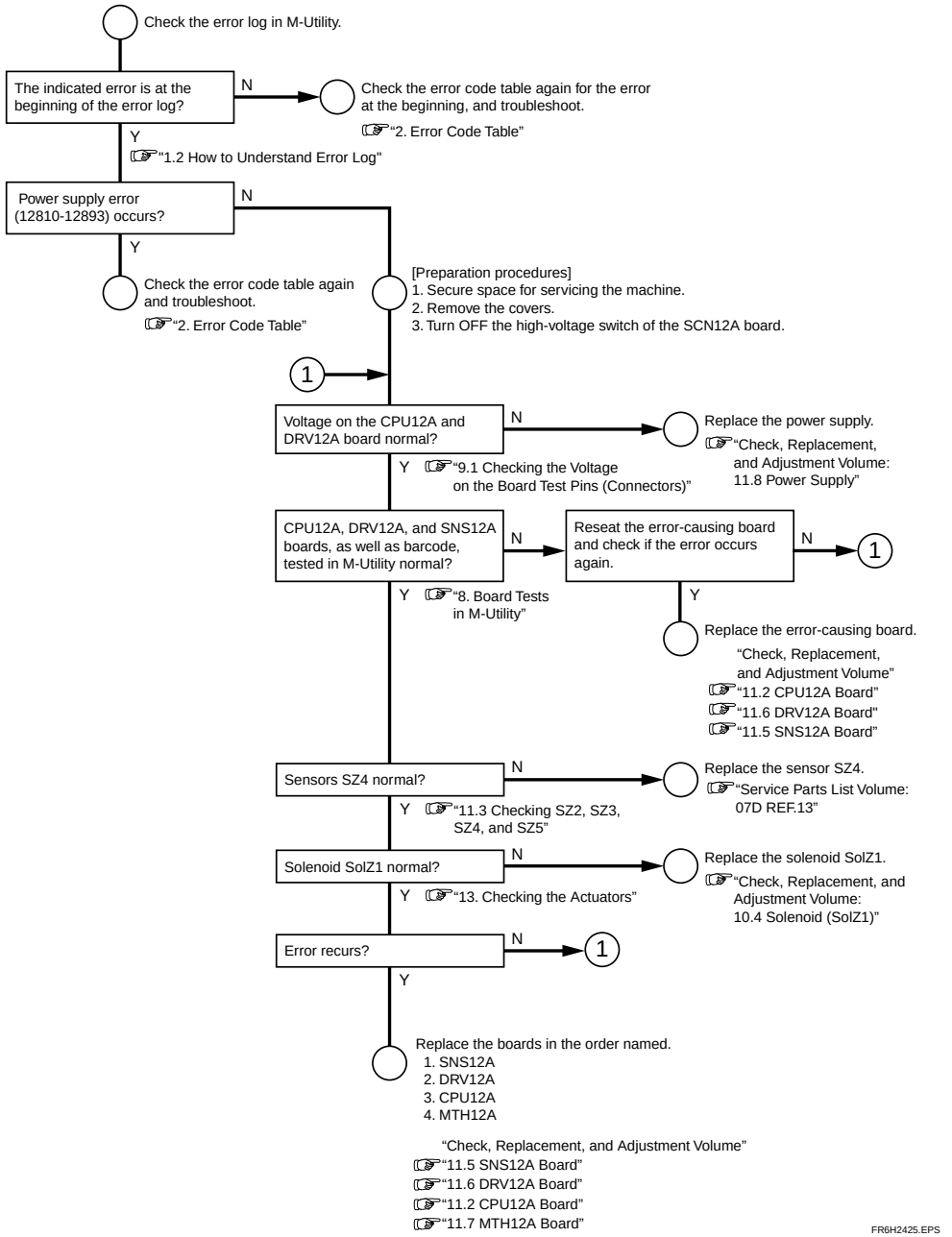
14341 IP stopper retreat retry

During bootup, routine processing, U-Utility dust removal operation, and shutdown processing, the SolZ1 is turned OFF to retreat the stopper, but the SZ4 does not transition to CLOSE, so that retries (within 5 times) are performed.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SZ4 normal?
N
Replace the sensor SZ4.
☞"Service Parts List Volume: 07D REF.13"
Y
☞"11.3 Checking SZ2, SZ3, SZ4, and SZ5"
Solenoid SolZ1 normal?
N
Replace the solenoid SolZ1.
☞"Check, Replacement, and Adjustment Volume: 10.4 Solenoid (SolZ1)"
Y
☞"13. Checking the Actuators"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2425.EPS

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10346, 10348, 10353, 10355, 12346, 12348, 12353, 13355, 14346, 14348, 14354, 14355

10346 Driving shaft grip error

During bootup, the MZ2 is driven to grip the driving shaft, but the SZ2 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.

10348 Both grip release error

During bootup, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.

10353 Driving shaft correction grip error

During bootup, the MZ2 is driven to correct the speed, but the SZ2 does not transition to OPEN within the specified period of time.

10355 Initialization grip movement (2) error

During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to CLOSE or the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.

12346 Driving shaft grip error

During routine processing, the MZ2 is driven to perform driving-shaft slow grip after driven-shaft grip is completed, but the SZ2 does not transition from CLOSE to OPEN.

12348 Both grip release error

During bootup and routine processing, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE. Retries (two times or more) are performed, but error results.

12353 Driving shaft correction grip error

During routine processing, the MZ2 is driven to perform driving-shaft correction grip, but the SZ2 does not transition to OPEN.

13355 Subscanning grip speed data update

During bootup and routine processing, the grip time for the driving shaft grip deviates by ±3% relative to its specified value, and the SZ2 transitions to OPEN, so that speed correction processing is performed.

14346 Driving shaft grip error

During bootup, the MZ2 is driven to grip the driving shaft, but the SZ2 does not transition from CLOSE to OPEN, so that a retry (within one time) is performed.

14348 Both grip release error

During bootup and routine processing, the MZ2 is driven to release both grips, but the SZ2 does not transition to CLOSE, so that a retry (within one time) is performed.

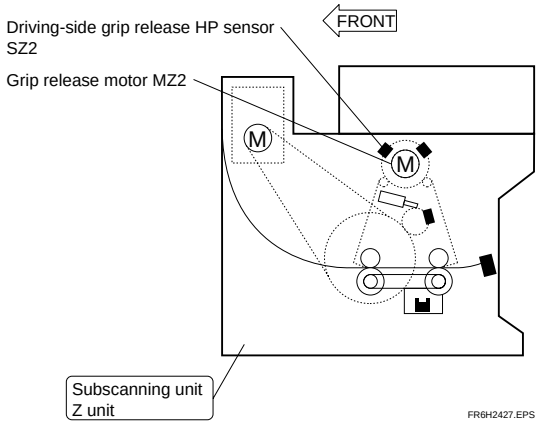
14354 Initialization grip movement (1) error

During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to OPEN, so that a retry (within one time) is performed.

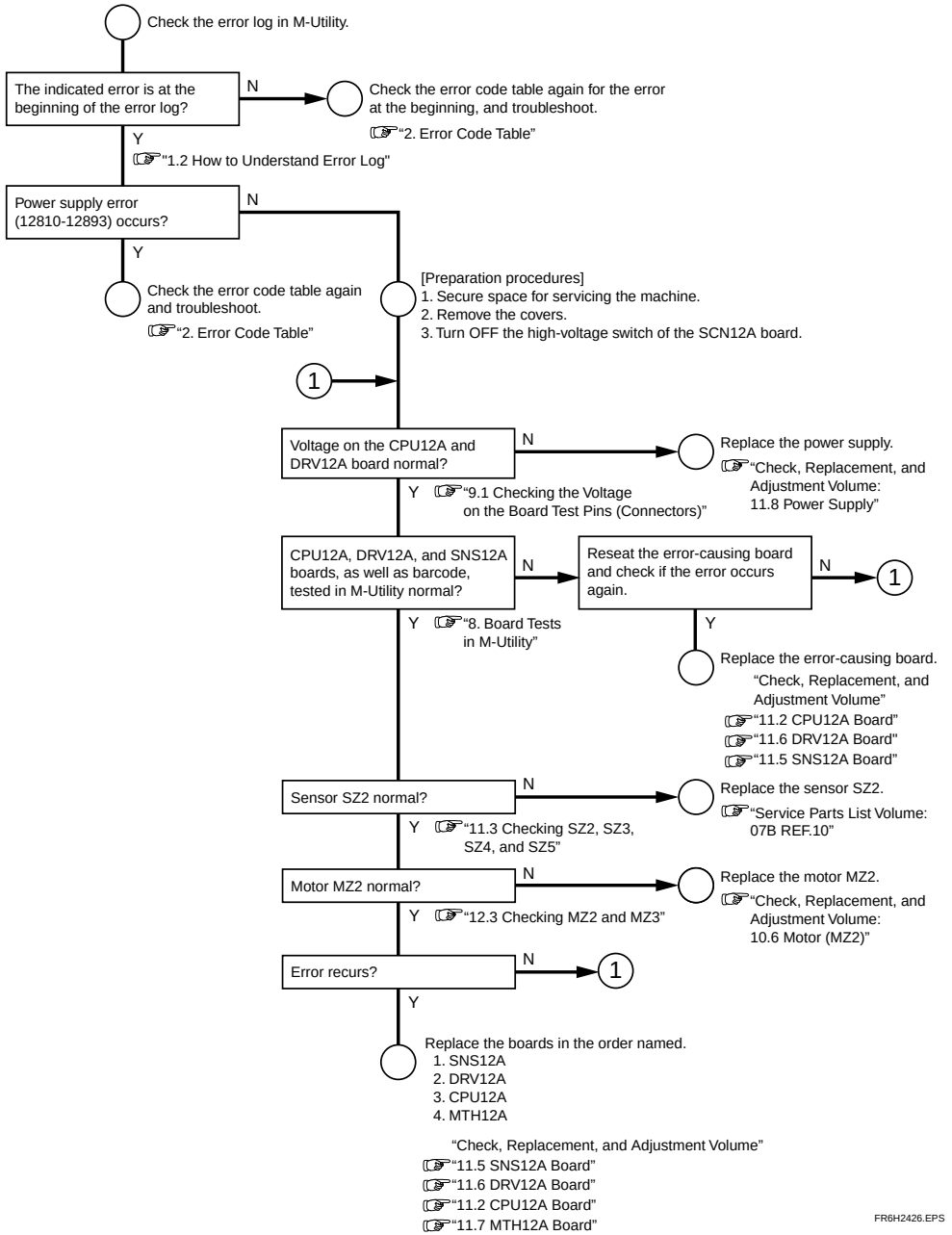
14355 Initialization grip movement (2) error

During bootup, the MZ2 is driven to check the grip state, but the SZ2 does not transition to CLOSE or the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SZ2 normal?
N
Replace the sensor SZ2.
☞"Service Parts List Volume: 07B REF.10"
Y
☞"11.3 Checking SZ2, SZ3, SZ4, and SZ5"
Motor MZ2 normal?
N
Replace the motor MZ2.
☞"Check, Replacement, and Adjustment Volume: 10.6 Motor (MZ2)"
Y
☞"12.3 Checking MZ2 and MZ3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2426.EPS

10347, 10349, 10354, 10356, 10357, 12347, 12349, 12352, 12354, 12355, 12356, 12357, 14347, 14349, 14356, 14357

10347 Driven shaft grip error

During bootup, the MZ2 is driven to grip the driven shaft, but the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.

10349 Driven shaft grip release error

During bootup, the MZ2 is driven to release the driven shaft grip, but the SZ3 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.

10354 Initialization grip movement (1) error

During bootup, the MZ2 is driven to check the grip state, but the SZ3 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results

10356 Ejection grip error

During bootup, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE within the specified period of time. Retries (two times or more) are performed, but error results.

10357 No-load running error

During bootup, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN within the specified period of time. Retries (two times or more) are performed, but error results.

12347 Driven shaft grip error

During routine processing, the MZ2 is driven to grip the driven shaft after side-positioning is completed, but the SZ3 does not transition to CLOSE. Retries (two times or more) are performed, but error results.

12349 Driven shaft grip release error

During routine processing, the MZ2 is driven to release the driven shaft slow grip after reading, but the SZ3 does not transition to OPEN.

12352 Driving shaft grip error stop

During bootup and routine processing, the grip time for the driving shaft grip deviates by ±3% relative to its specified value, but the SZ2 is CLOSE.

12354 Driving shaft grip disorder

During routine processing, the MZ2 is driven to perform driving-shaft slow grip and the SZ2 transitions from CLOSE to OPEN, but the grip time deviates by ±3% relative to its specified value.

12355 Driving shaft grip malfunction

During bootup and routine processing, because the grip time for the driving shaft grip deviates by ±6% relative to its specified value, speed correction processing and operation check are performed.

12356 Ejection grip error

During routine processing, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE. Retries (two times or more) are performed, but error results.

12357 No-load running error

During bootup and routine processing, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN. Retries (two times or more) are performed, but error results.

14347 Driven shaft grip error

During bootup and routine processing, the MZ2 is driven to grip the driven shaft, but the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.

14349 Driven shaft grip release error

During bootup, the MZ2 is driven to release the driven shaft grip, but the SZ3 does not transition to OPEN, so that a retry (within one time) is performed.

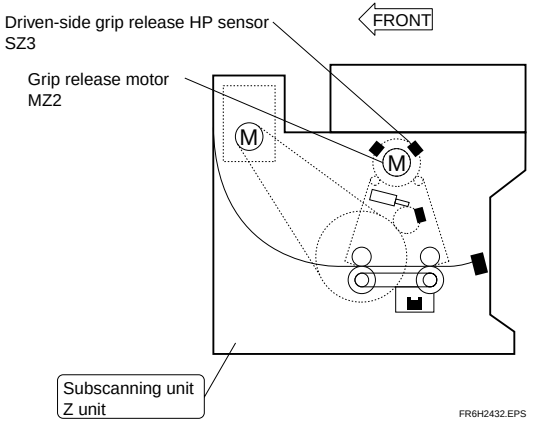
14356 Ejection grip error

During bootup and routine processing, the MZ2 is driven to perform ejection grip, but the SZ3 does not transition to CLOSE, so that a retry (within one time) is performed.

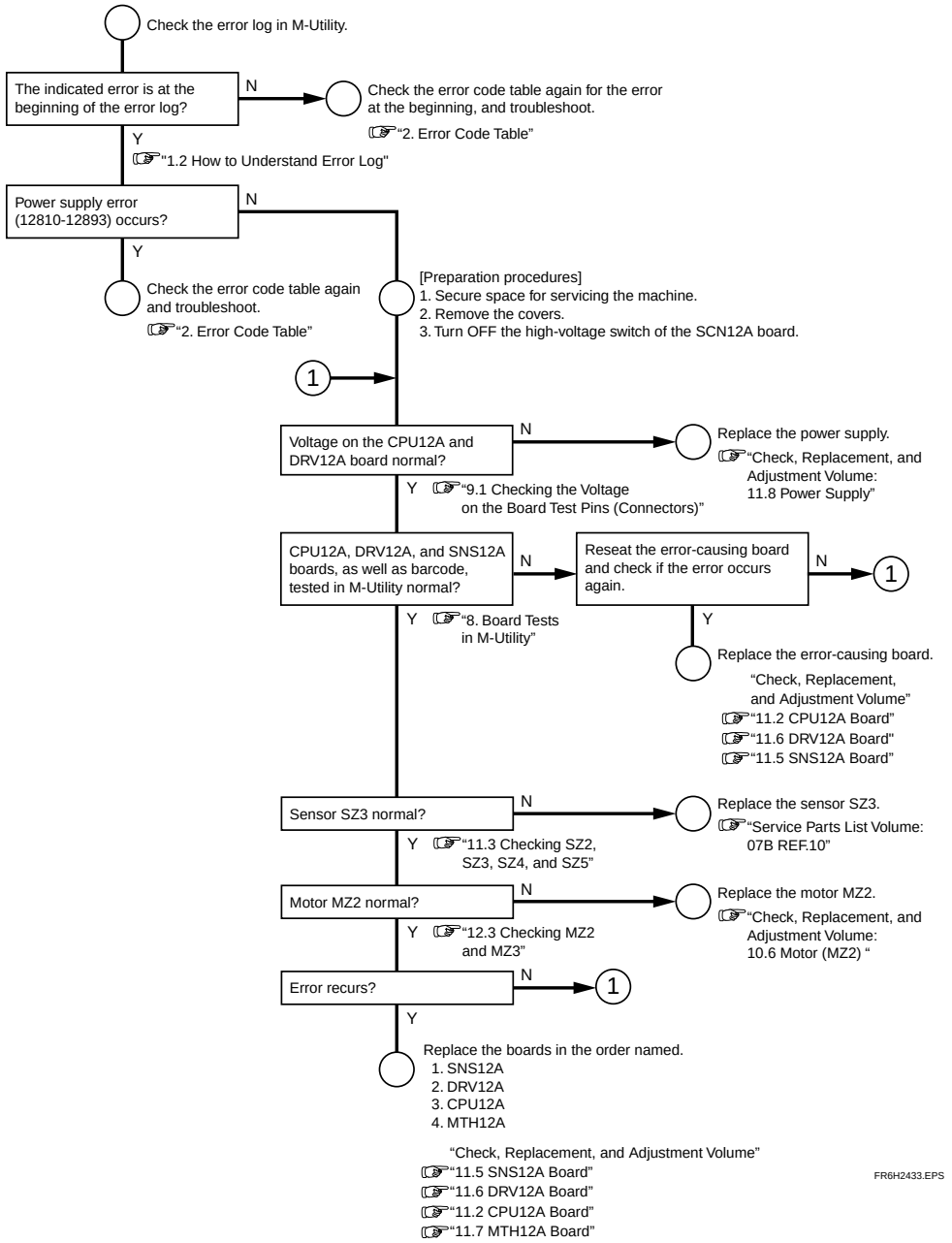
14357 No-load running error

During bootup and routine processing, the MZ2 is driven to perform no-load running, but the SZ3 does not transition to OPEN, so that a retry (within one time) is performed.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SZ3 normal?
N
Replace the sensor SZ3.
☞"Service Parts List Volume: 07B REF.10"
Y ☞"11.3 Checking SZ2, SZ3, SZ4, and SZ5"
Motor MZ2 normal?
N
Replace the motor MZ2.
☞"Check, Replacement, and Adjustment Volume: 10.6 Motor (MZ2) "
Y ☞"12.3 Checking MZ2 and MZ3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2433.EPS

10370, 10371

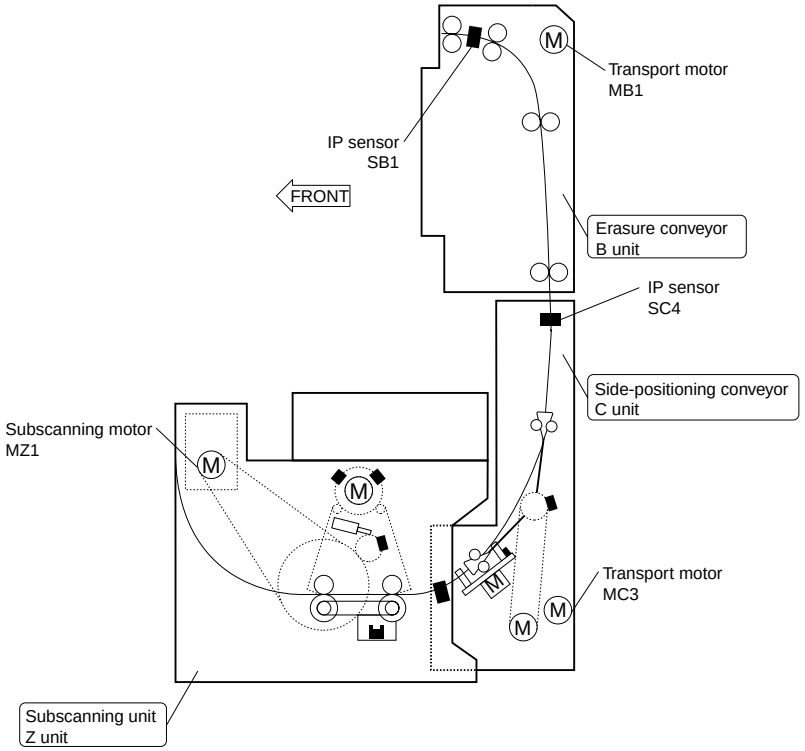
10370 Load positioning error

During routine processing, the MB1 is driven (counterclockwise) to perform load conveyance, but the SB1 does not transition to OPEN within the specified period of time.

10371 Recovery load positioning error

During error handling, the MB1, MC1, and MZ1 are driven (counterclockwise) for load conveyance after the IP leading edge is detected by the SB1, but the SB1 does not transition to OPEN within the specified period of time (20 sec).

■ I/O Locations



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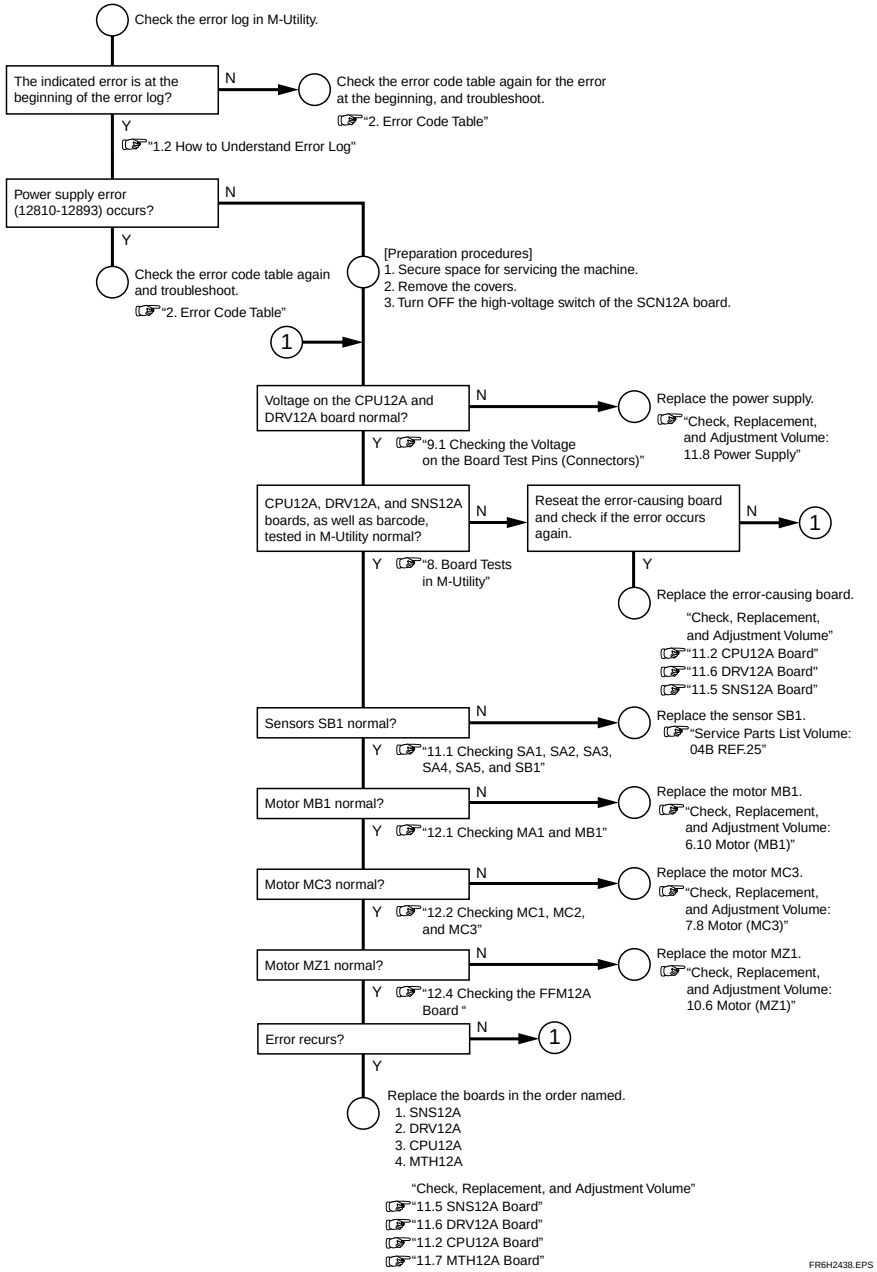
■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SB1 normal?
N
Replace the sensor SB1.
☞"Service Parts List Volume: 04B REF.25"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MC3 normal?
N
Replace the motor MC3.
☞"Check, Replacement, and Adjustment Volume: 7.8 Motor (MC3)"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.6 Motor (MZ1)"
Y ☞"12.4 Checking the FFM12A Board "
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

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10390, 10391, 10392, 10393, 12390, 12391, 12392, 12393, 12394, 12395, 13391, 13392

10390 Dust removal operation error (1)

During bootup or U-Utility dust removal operation, the MZ3 is driven (clockwise), but the SZ5 does not transition to CLOSE within the specified period of time.

10391 Dust removal mechanism lock (1)

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but a mechanism lock results.

Subsequently, the MZ3 is driven (clockwise), but the SZ5 does not transition from CLOSE to OPEN within the specified period of time.

10392 Dust removal mechanism lock (2)

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but a mechanism lock results.

Subsequently, the MZ3 is driven (clockwise), but the SZ5 does not transition from OPEN to CLOSE within the specified period of time.

10393 Dust removal operation error (4)

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to perform home positioning, but the SZ5 does not transition from CLOSE to OPEN within the specified period of time.

12390 Dust removal operation error (1)

During U-Utility dust removal operation, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE.

12391 Dust removal operation error (2)

During U-Utility dust removal operation, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition to OPEN after transitioning from OPEN to CLOSE.

12392 Dust removal operation error (3)

During U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE.

12393 Dust removal operation error (4)

During U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to perform dust removal operation, but the SZ5 does not transition to OPEN after transitioning from OPEN to CLOSE.

12394 Dust removal operation error (5)

During shutdown processing, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from OPEN to CLOSE.

12395 Dust removal operation in low speed

During bootup, the MZ3 is driven (clockwise) to perform dust removal operation, but the SZ5 does not transition from CLOSE to OPEN within the specified time (30 sec) in the low-speed operation mode (from the large actuator hole to the small hole).

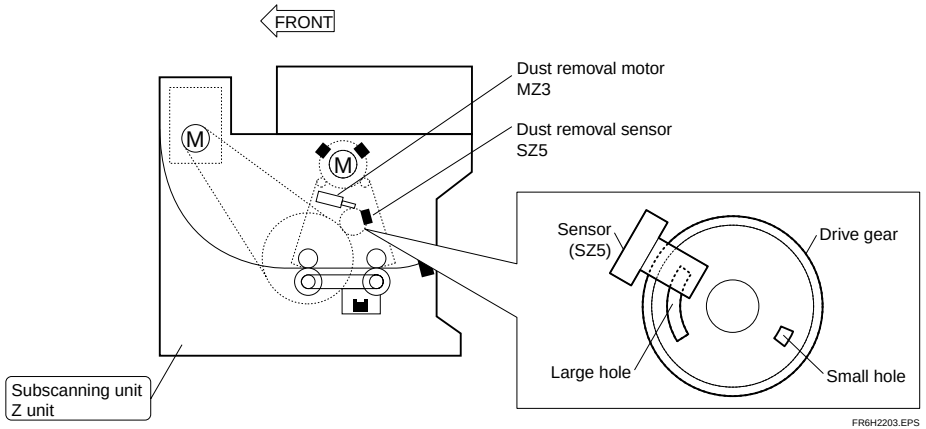
13391 Dust removal mechanism lock (1)

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but the SZ5 does not transition from CLOSE to OPEN within the specified period of time.

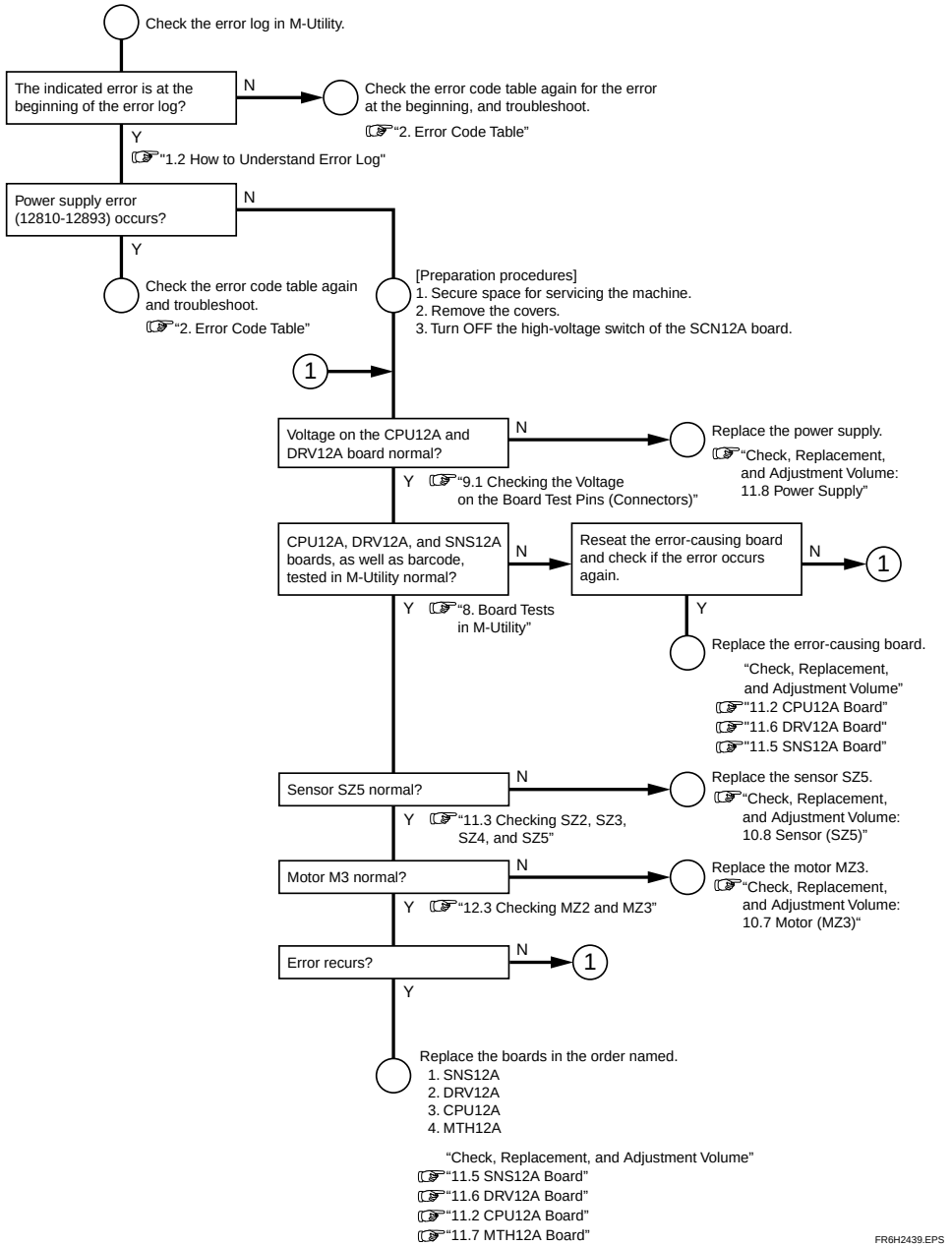
13392 Dust removal mechanism lock (2)

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise) to measure the length of the hole (x2) of the drive gear, but the SZ5 does not transition from OPEN to CLOSE within the specified period of time.

■ I/O Locations



■ Analysis Flow

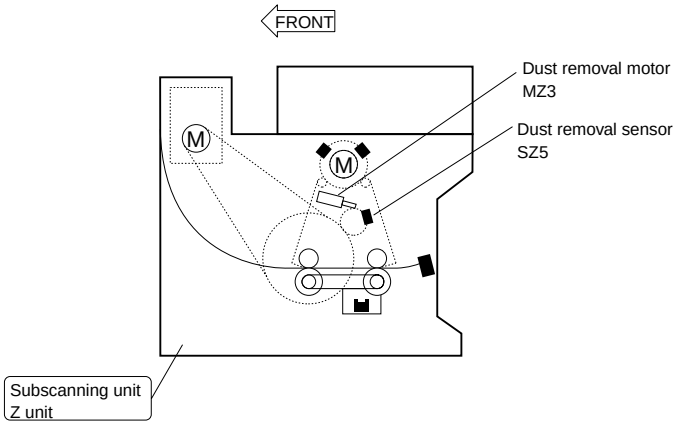

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SZ5 normal?
N
Replace the sensor SZ5.
☞"Check, Replacement, and Adjustment Volume: 10.8 Sensor (SZ5)"
Y ☞"11.3 Checking SZ2, SZ3, SZ4, and SZ5"
Motor M3 normal?
N
Replace the motor MZ3.
☞"Check, Replacement, and Adjustment Volume: 10.7 Motor (MZ3)"
Y ☞"12.3 Checking MZ2 and MZ3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2439.EPS

10394

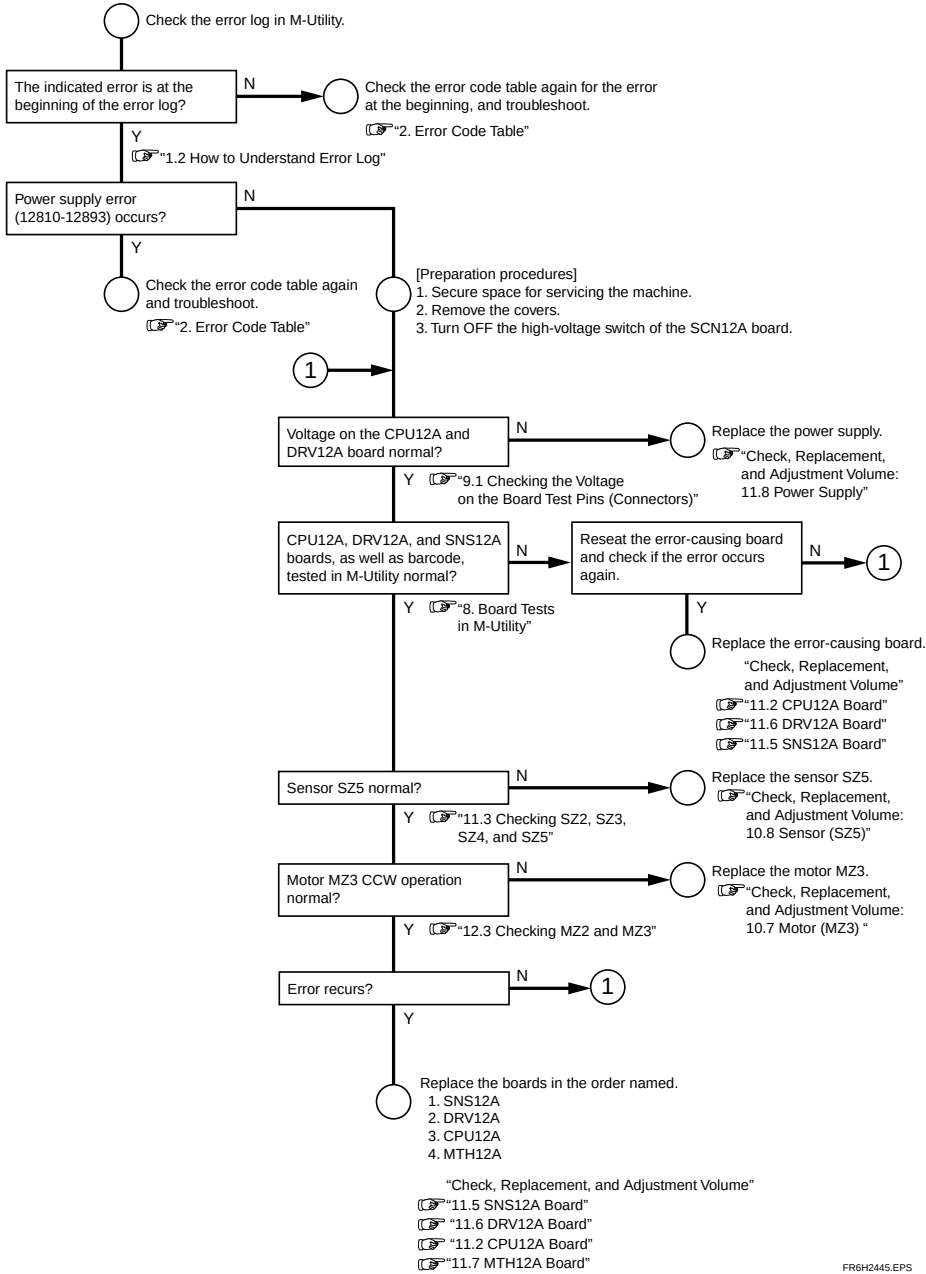
10394 Dust removal CCW drive error

During bootup or U-Utility dust removal operation, the MZ3 is driven (counterclockwise), but two or more retries occur. However, driving in the clockwise direction is normal.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SZ5 normal?
N
Replace the sensor SZ5.
☞"Check, Replacement, and Adjustment Volume: 10.8 Sensor (SZ5)"
Y ☞"11.3 Checking SZ2, SZ3, SZ4, and SZ5"
Motor MZ3 CCW operation normal?
N
Replace the motor MZ3.
☞"Check, Replacement, and Adjustment Volume: 10.7 Motor (MZ3) "
Y ☞"12.3 Checking MZ2 and MZ3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2445.EPS

11310, 11311, 14310, 14312

11310 Cassette setting error (1)

During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned OFF, the SA3 does not transition to OPEN. Retries (six times or more) are performed, but error results.

11311 Cassette setting error (2)

During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned ON, the cassette is moved, but the SA2 does not transition to CLOSE within the specified period of time. However, the SA1 is CLOSE.

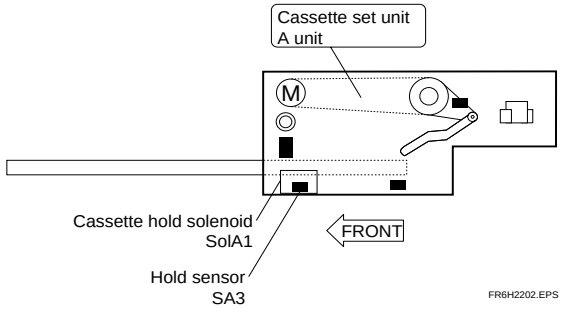
14310 Cassette hold failure retry

During routine processing, the SA2 transitions to CLOSE, and after the SolA1 is turned OFF, the SA3 transitions to CLOSE, so that retries (within five times) are performed.

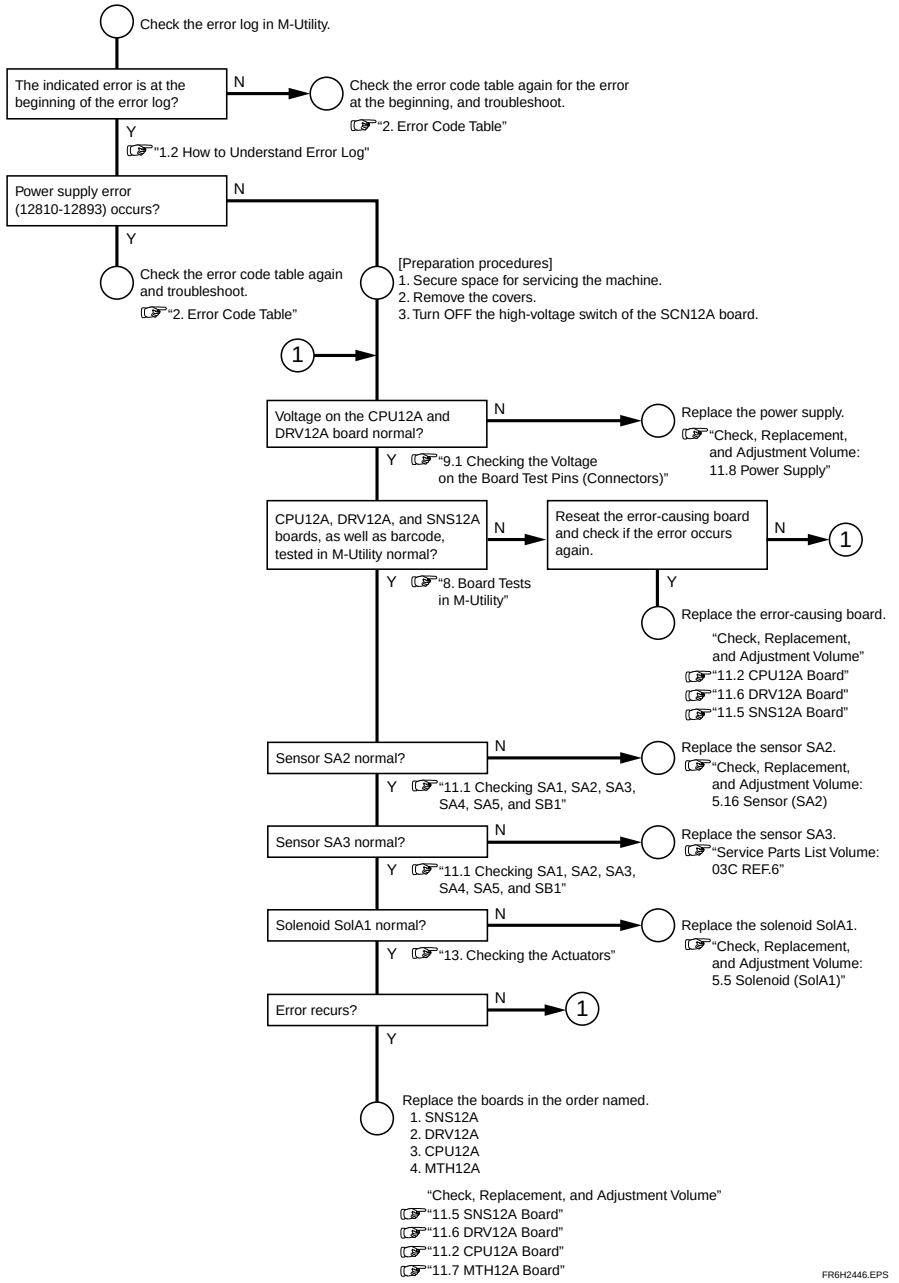
14312 Cassette hold release failure retry

During routine processing, the SolA1 is turned ON to release the cassette hold, but the SA3 does not transition to CLOSE within the specified period of time, so that retries (within five times) are performed.

■ I/O Locations



■ Analysis Flow

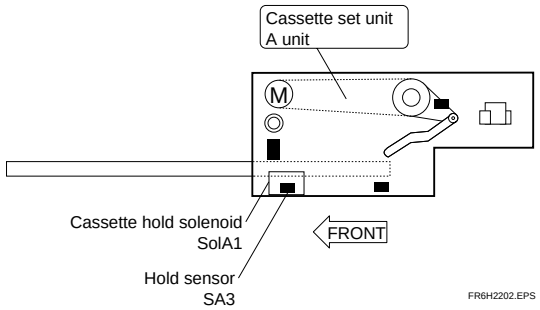

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA2 normal?
N
Replace the sensor SA2.
☞"Check, Replacement, and Adjustment Volume: 5.16 Sensor (SA2)"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Sensor SA3 normal?
N
Replace the sensor SA3.
☞"Service Parts List Volume: 03C REF.6"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Solenoid SolA1 normal?
N
Replace the solenoid SolA1.
☞"Check, Replacement, and Adjustment Volume: 5.5 Solenoid (SolA1)"
Y ☞"13. Checking the Actuators"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2446.EPS

11312

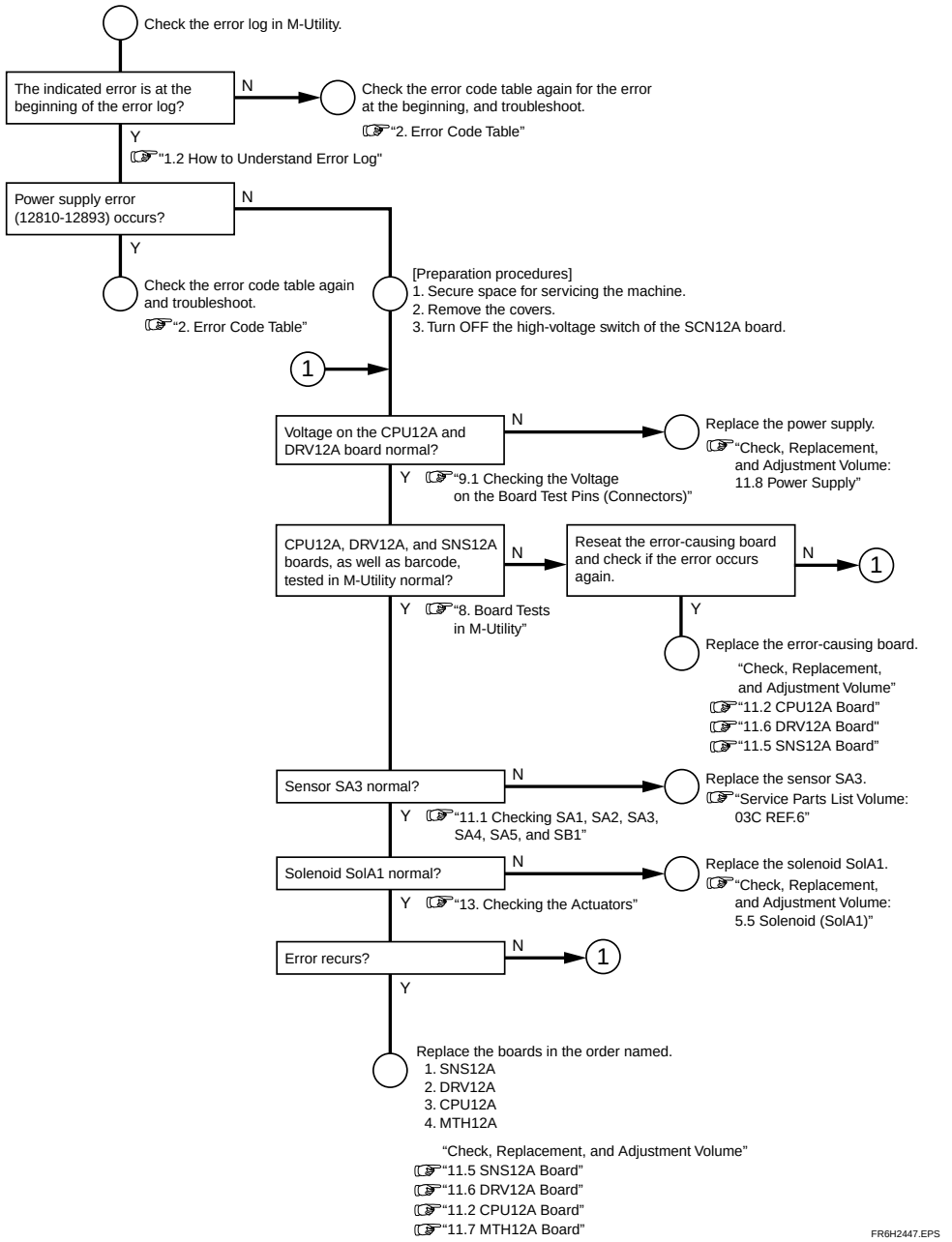
11312 Cassette hold release error

During routine processing, the SolA1 is turned ON to release the cassette hold, but the SA3 does not transition to CLOSE within the specified period of time. Retries (six times or more) are performed, but error results.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA3 normal?
N
Replace the sensor SA3.
☞"Service Parts List Volume: 03C REF.6"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Solenoid SolA1 normal?
N
Replace the solenoid SolA1.
☞"Check, Replacement, and Adjustment Volume: 5.5 Solenoid (SolA1)"
Y ☞"13. Checking the Actuators"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2447.EPS

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11319, 11320, 11321, 11322, 14319, 14320, 14321, 14322

11319 Feed IP suction error

During routine processing, the MA1 is driven (counterclockwise) and the PA1 is turned ON to perform IP feed leak, but the SA5 does not transition to CLOSE within the specified period of time. Retries (four times or more) are performed, but error results.

11320 Feed IP drop

During bootup and routine processing, the MA1 and MB1 are driven (clockwise) to feed the IP from the cassette, but the SA5 transitions to OPEN at the time when the IP is griped by the rollers. Retries (two times or more) are performed, but error results.

11321 Feed IP grip error

During bootup and routine processing, the MB1 is driven (clockwise) to perform IP feed leak and conveyance, but the SB1 does not transition to CLOSE within the specified period of time. Retries (four times or more) are performed, but error results.

11322 Feed conveyance error

During routine processing, the MB1 and MC3 are driven (clockwise) to perform IP high-speed conveyance, but the SC3 transitions to OPEN. Retries (four times or more) are performed, but error results.

14319 Feed IP suction failure retry

During routine processing, the MA1 is driven (counterclockwise) and the PA1 is turned ON to perform IP feed leak, but the SA5 transitions to OPEN, so that retries (within three times) are performed.

14320 Feed IP drop retry

During bootup and routine processing, the MA1 and MB1 are driven (clockwise) to feed the IP from the cassette, but the SA5 transitions to OPEN at the time when the IP is gripped by the rollers, so that a retry (within one time) is performed.

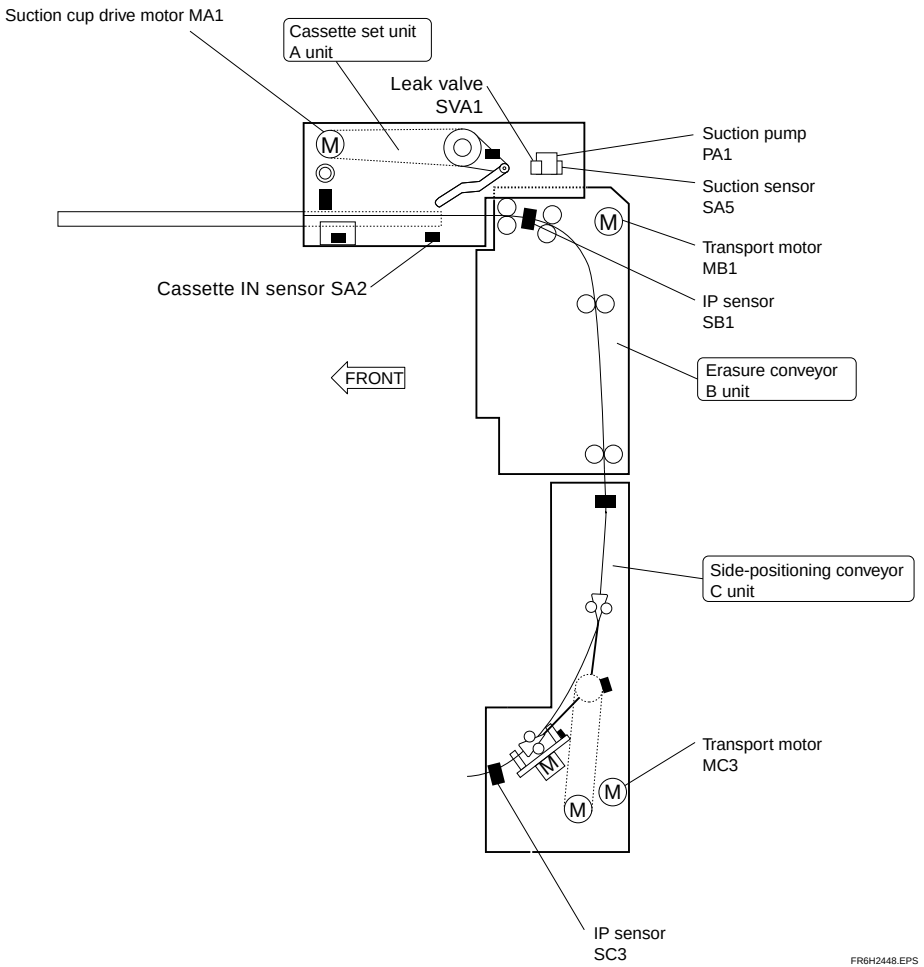
14321 Feed IP grip failure retry

During bootup and routine processing, the MB1 is driven (clockwise) to perform IP feed leak and conveyance, but the SB1 transitions to OPEN, so that retries (within three times) are performed.

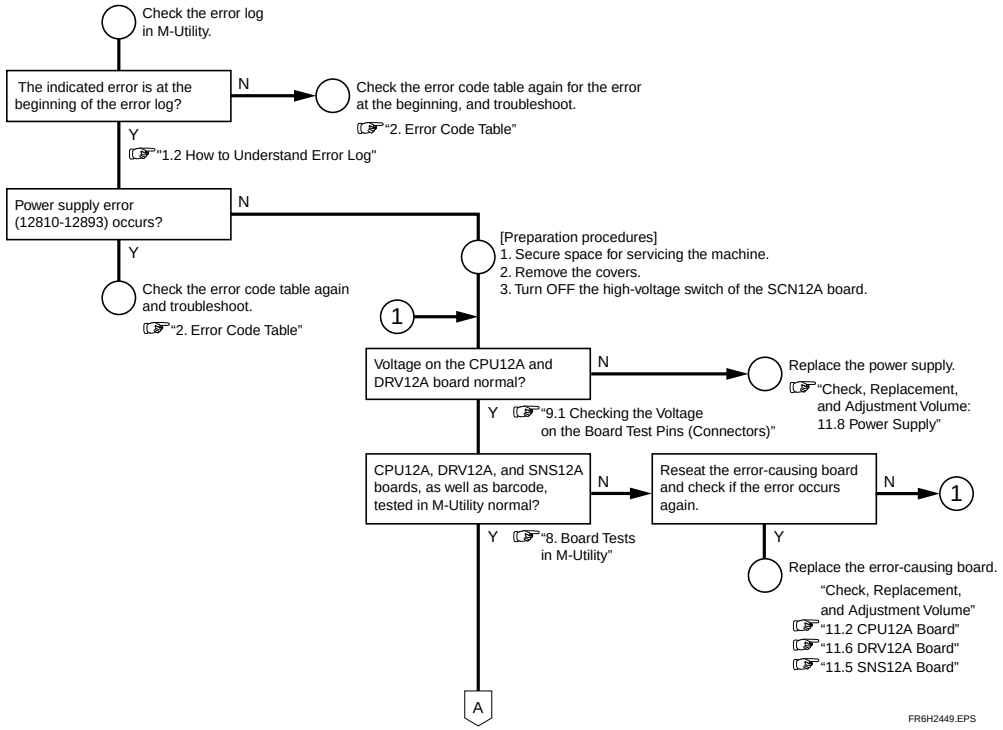
14322 Feed conveyance retry

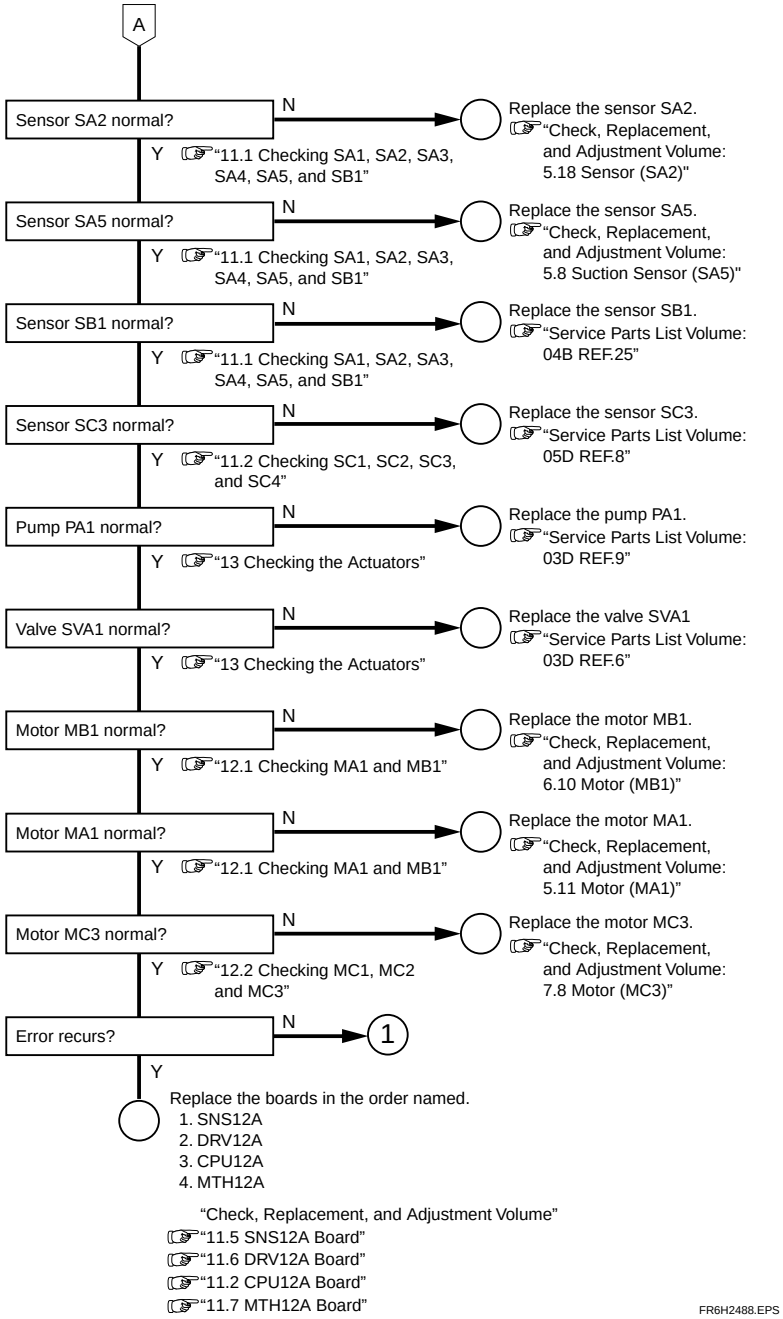
During routine processing, the MB1 and MC3 are driven (clockwise) to perform IP high-speed conveyance, but the SC3 transitions to OPEN, so that retries (within three times) are performed.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
A
FR6H2449.EPS


A
Sensor SA2 normal?
N
Replace the sensor SA2.
☞"Check, Replacement, and Adjustment Volume: 5.18 Sensor (SA2)"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Sensor SA5 normal?
N
Replace the sensor SA5.
☞"Check, Replacement, and Adjustment Volume: 5.8 Suction Sensor (SA5)"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Sensor SB1 normal?
N
Replace the sensor SB1.
☞"Service Parts List Volume: 04B REF.25"
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Sensor SC3 normal?
N
Replace the sensor SC3.
☞"Service Parts List Volume: 05D REF.8"
Y ☞"11.2 Checking SC1, SC2, SC3, and SC4"
Pump PA1 normal?
N
Replace the pump PA1.
☞"Service Parts List Volume: 03D REF.9"
Y ☞"13 Checking the Actuators"
Valve SVA1 normal?
N
Replace the valve SVA1
☞"Service Parts List Volume: 03D REF.6"
Y ☞"13 Checking the Actuators"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MA1 normal?
N
Replace the motor MA1.
☞"Check, Replacement, and Adjustment Volume: 5.11 Motor (MA1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MC3 normal?
N
Replace the motor MC3.
☞"Check, Replacement, and Adjustment Volume: 7.8 Motor (MC3)"
Y ☞"12.2 Checking MC1, MC2 and MC3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2488.EPS

10360, 10361, 11323, 14323

10360 After-erasure conveyance error

During routine processing, the SB1 cannot detect the IP leading edge for after-erasure conveyance (the MB1 is driven counterclockwise). The MB1 is driven (counterclockwise) to perform load conveyance, but the SB1 does not transition to CLOSE within the specified period of time (20 sec).

10361 After-recovery-erasure conveyance error

During error handling, the SB1 cannot detect the IP leading edge. The MB1, MC1, and MZ1 are driven (counterclockwise) for load conveyance, but the SB1 does not transition to CLOSE within the specified period of time (20 sec). (The SB1 is in OPEN status.)

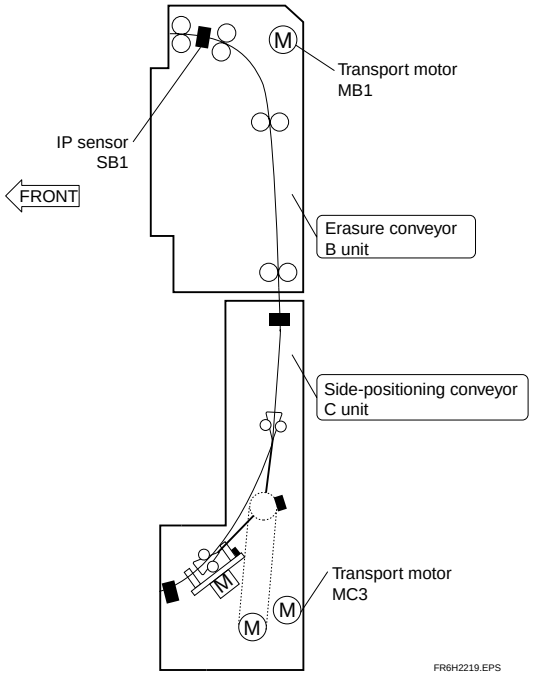
11323 Length-measurement conveyance error

During routine processing, the MB1 and MC3 are driven (clockwise) to determine the IP size, but the SB1 transitions to OPEN. Retries (four times or more) are performed, but error results.

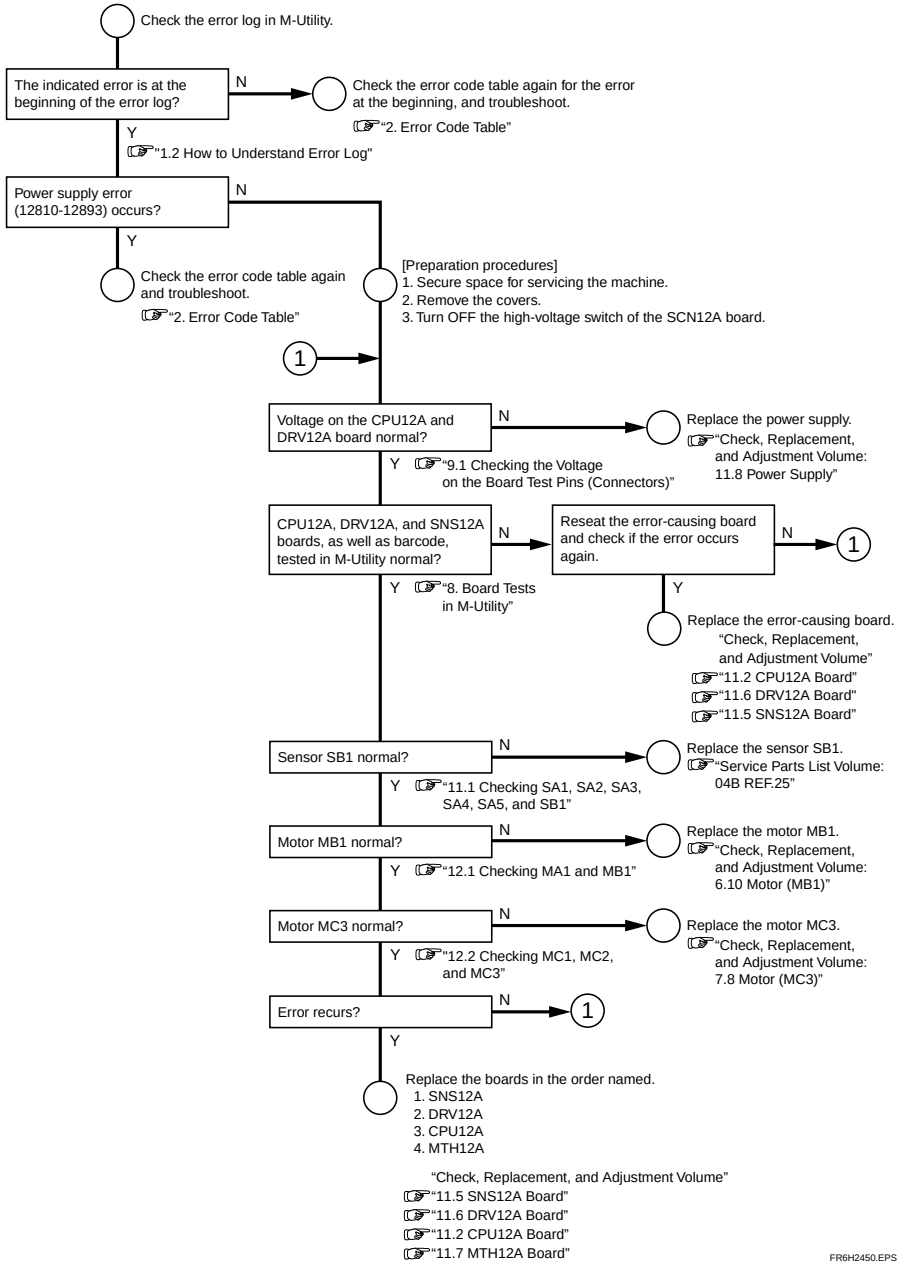
14323 Length-measurement conveyance retry

During routine processing, the MB1 and MC3 are driven (clockwise) to determine the IP size, but the SB1 transitions to OPEN, so that retries (within three times) are performed.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SB1 normal?
N
Replace the sensor SB1.
☞"Service Parts List Volume: 04B REF.25"
Y
☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y
☞"12.1 Checking MA1 and MB1"
Motor MC3 normal?
N
Replace the motor MC3.
☞"Check, Replacement, and Adjustment Volume: 7.8 Motor (MC3)"
Y
☞"12.2 Checking MC1, MC2, and MC3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2450.EPS

11325, 12325

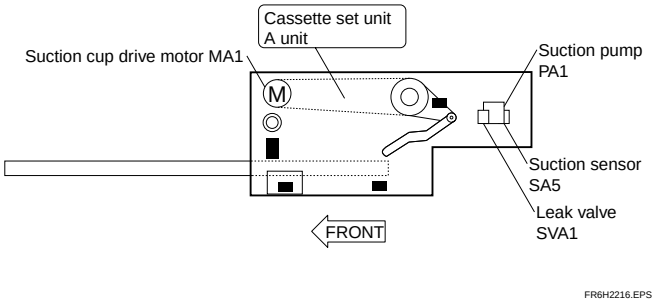
11325 Load leak error

During routine processing, the SVA1 is turned ON and the PA1 is turned OFF to leak the IP after loading it into the cassette, but the SA5 does not transition to OPEN.

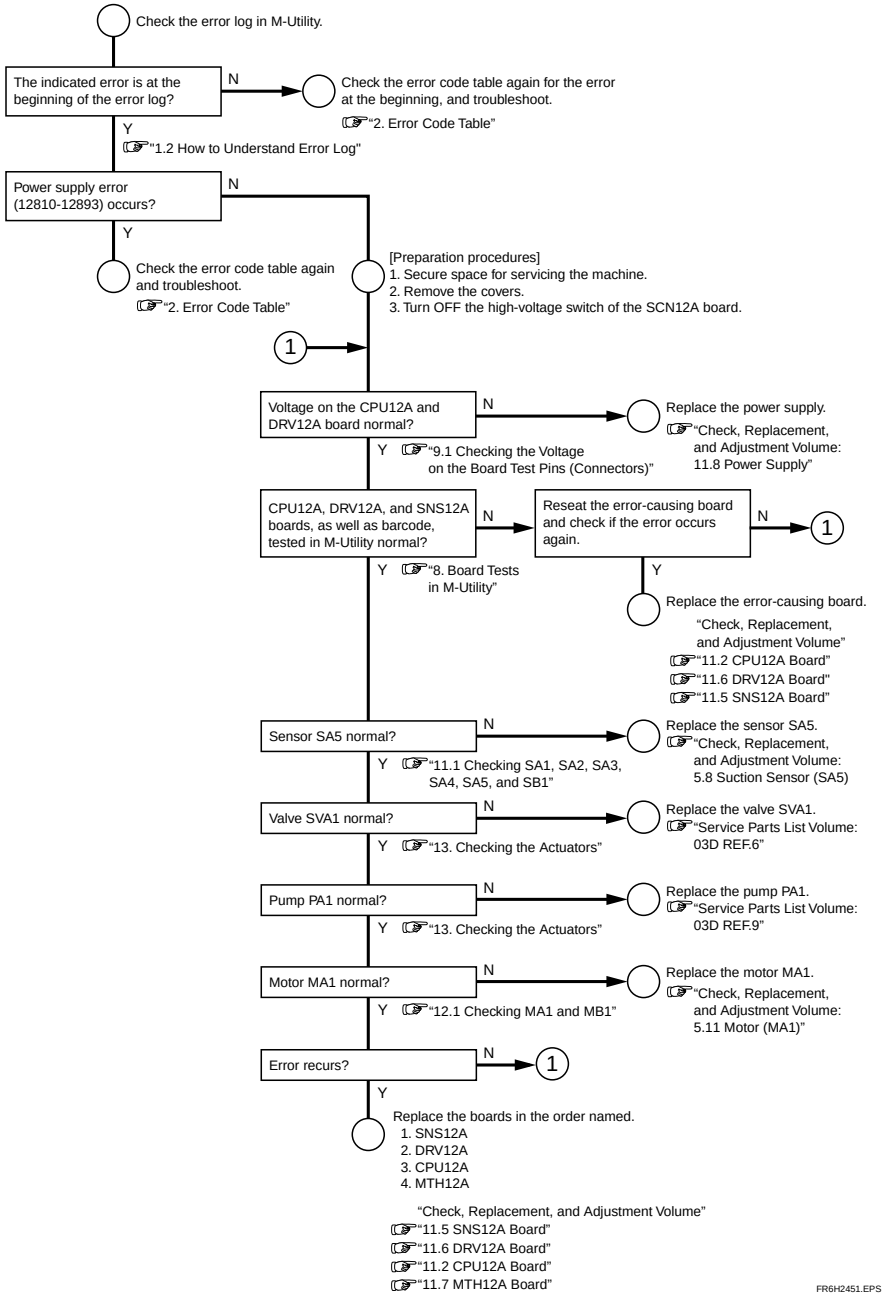
12325 Feed leak error

During bootup and routine processing, the SVA1 is turned ON and the PA1 is turned OFF to perform IP feed leak, but the SA5 does not transition to OPEN.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA5 normal?
N
Replace the sensor SA5.
☞"Check, Replacement, and Adjustment Volume: 5.8 Suction Sensor (SA5)
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Valve SVA1 normal?
N
Replace the valve SVA1.
☞"Service Parts List Volume: 03D REF.6"
Y ☞"13. Checking the Actuators"
Pump PA1 normal?
N
Replace the pump PA1.
☞"Service Parts List Volume: 03D REF.9"
Y ☞"13. Checking the Actuators"
Motor MA1 normal?
N
Replace the motor MA1.
☞"Check, Replacement, and Adjustment Volume: 5.11 Motor (MA1)"
Y ☞"12.1 Checking MA1 and MB1"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2451.EPS

11342, 11343, 11344

11342 Reading IP leading-edge detection error

During routine processing, the MZ1 is driven (clockwise) to perform read processing, but the SZ1 transitions to OPEN. Subsequently, the laser is turned OFF, and when IP conveyance is performed to isolate the error, the SC3 transitions to OPEN.

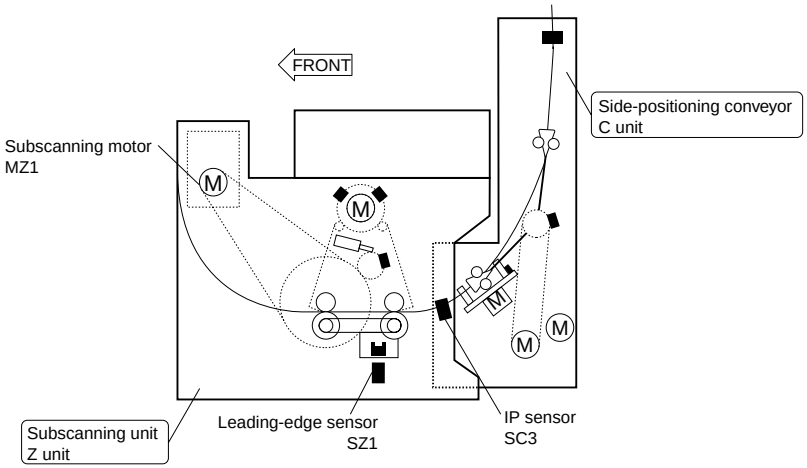
11343 Subscanning conveyance error (1)

During routine processing, the MZ1 is driven (clockwise) to perform read processing, but the SZ1 transitions to OPEN. Subsequently, the laser is turned OFF, and when IP conveyance is performed to isolate the error, the SC3 transitions to CLOSE.

11344 Subscanning conveyance error (2)

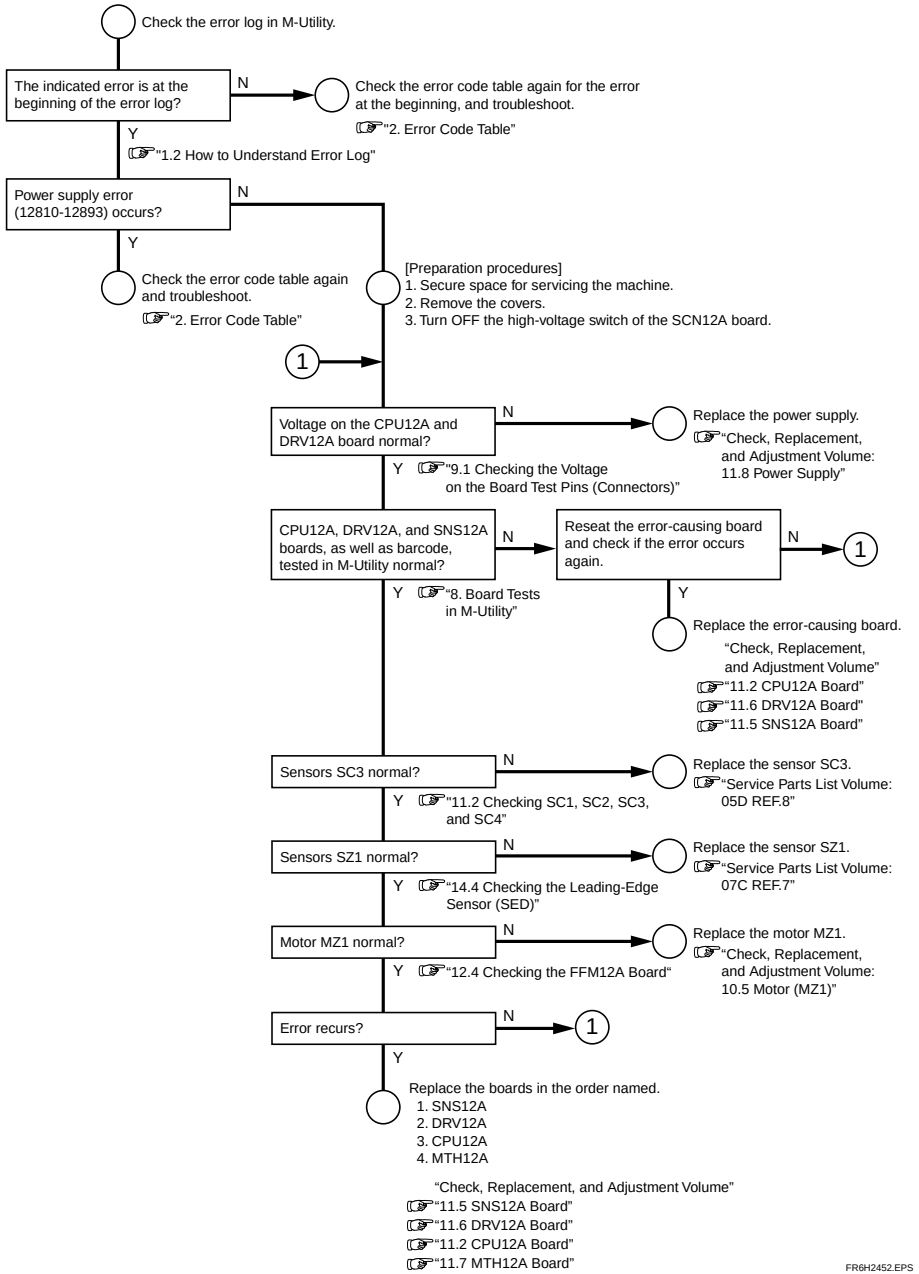
During routine processing, the SC3 does not transition to OPEN within the specified period of time before the end-of-image interrupt after reading is initiated.

■ I/O Locations



FR6H2220.EPS

■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SC3 normal?
N
Replace the sensor SC3.
☞"Service Parts List Volume: 05D REF.8"
Y ☞"11.2 Checking SC1, SC2, SC3, and SC4"
Sensors SZ1 normal?
N
Replace the sensor SZ1.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.5 Motor (MZ1)"
Y ☞"12.4 Checking the FFM12A Board"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

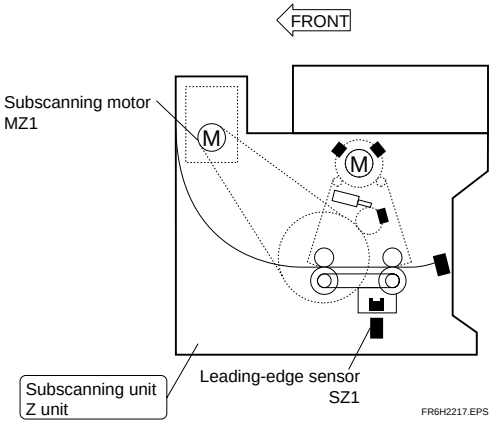
FR6H2452.EPS

11350

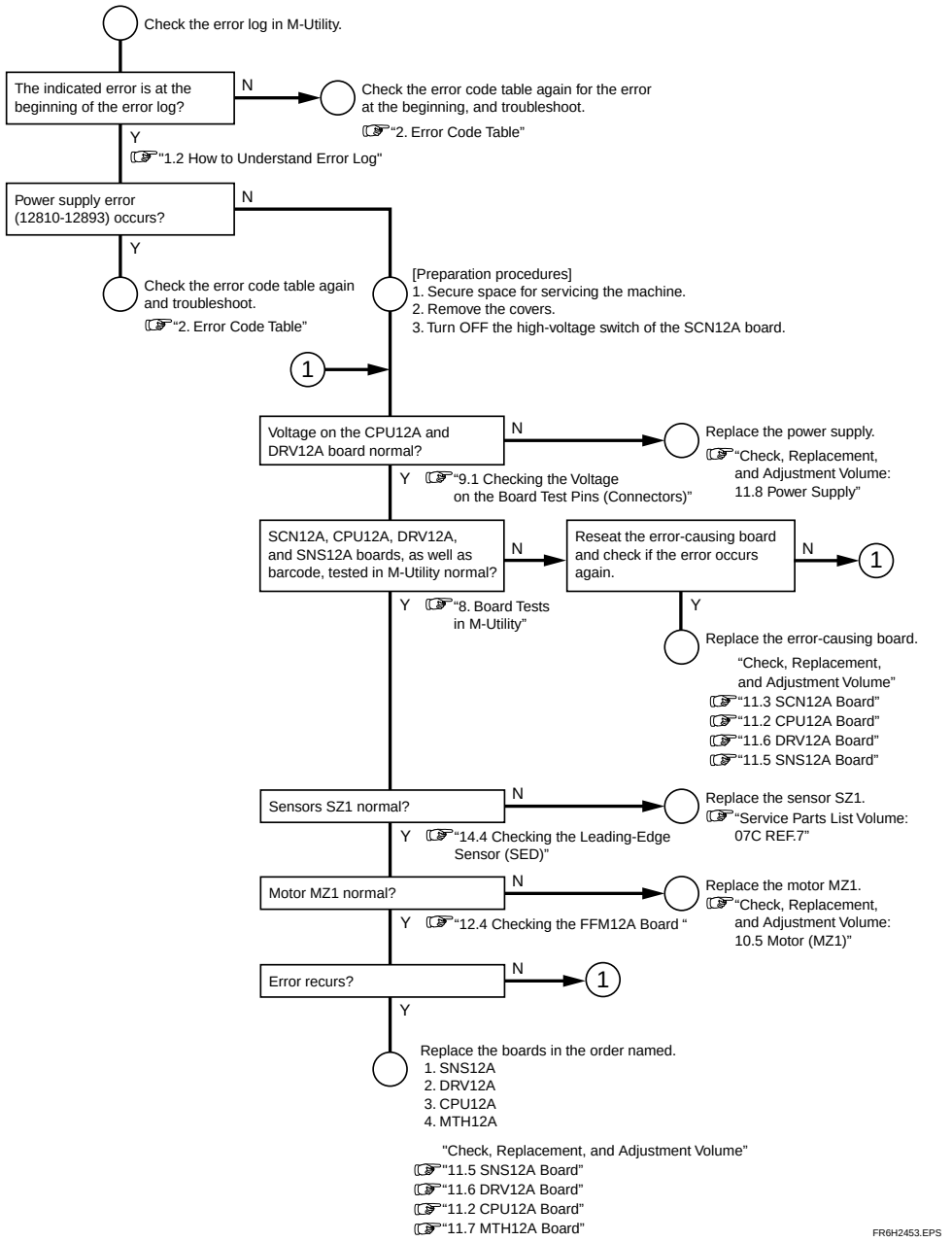
11350 End-of-image timeout

During routine processing, the end-of-image interrupt from the scanner board is not processed within the specified period of time after reading is initiated.

■ I/O Locations



■ Analysis Flow

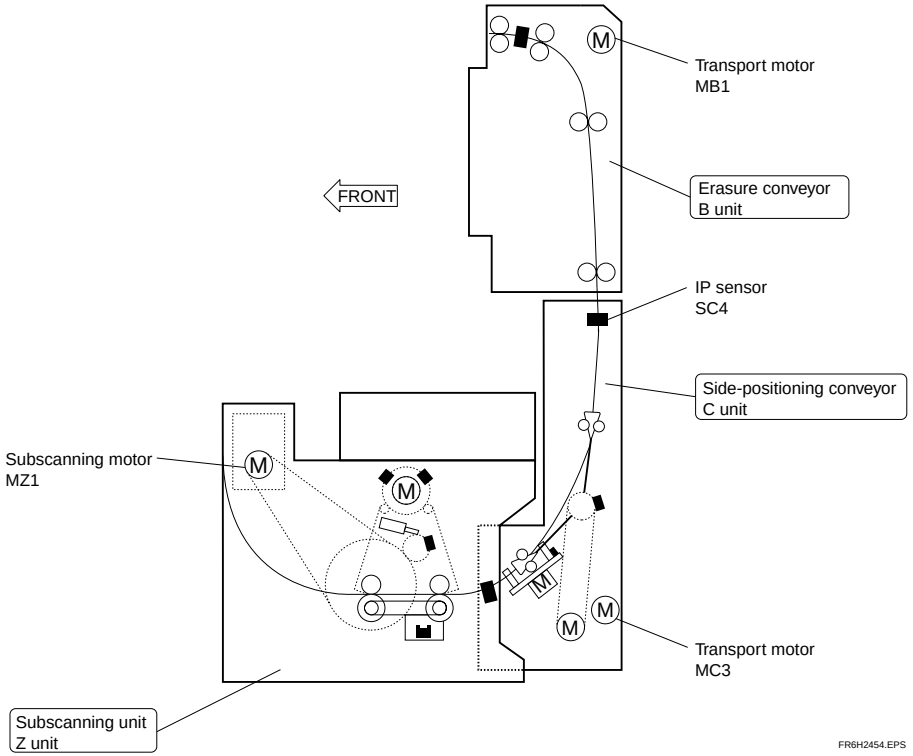

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
SCN12A, CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SZ1 normal?
N
Replace the sensor SZ1.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.5 Motor (MZ1)"
Y ☞"12.4 Checking the FFM12A Board "
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2453.EPS

11362

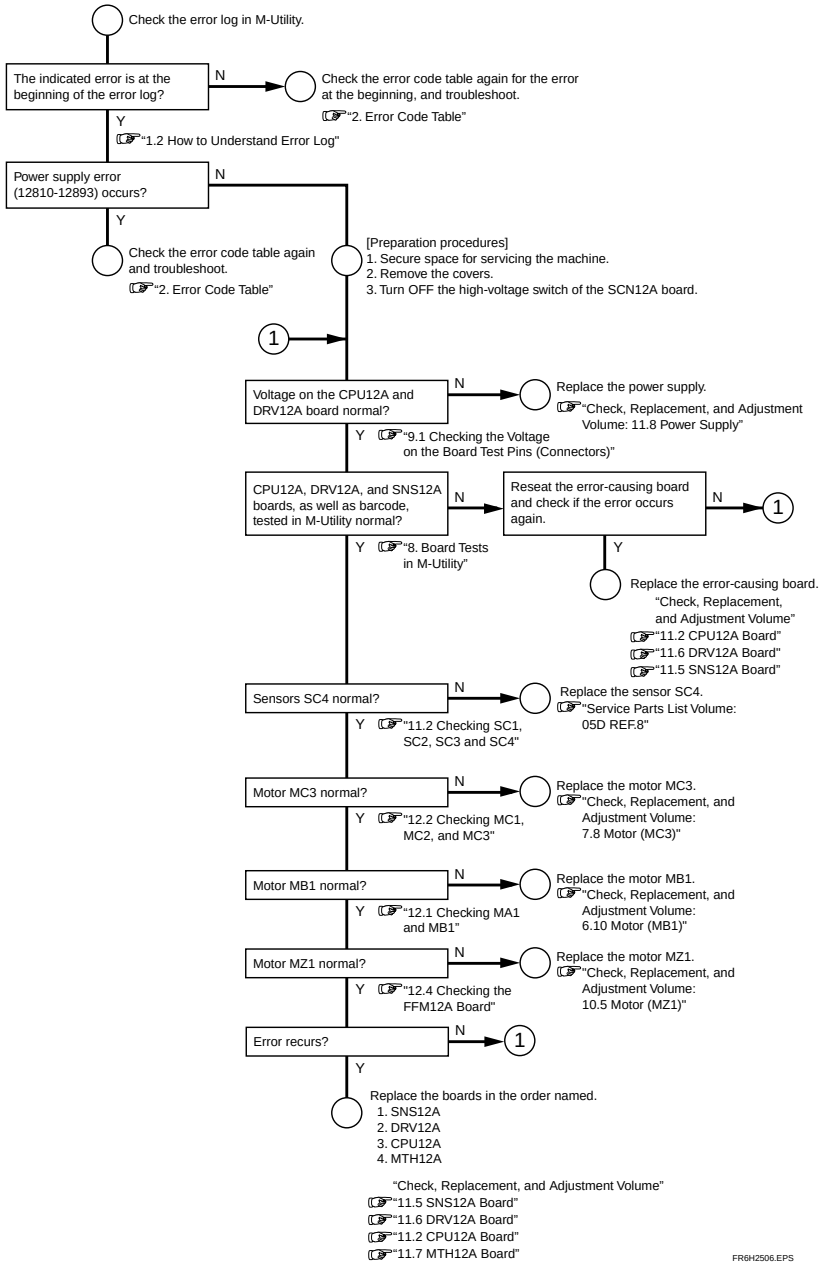
11362 After-reading conveyance error

During routine processing, the MZ1, MC3, and MB1 are driven (counterclockwise) to convey the IP to the erasure unit after reading is completed, but the SC4 does not transition to CLOSE within the specified period of time.

■ I/O Locations



■ Analysis Flow

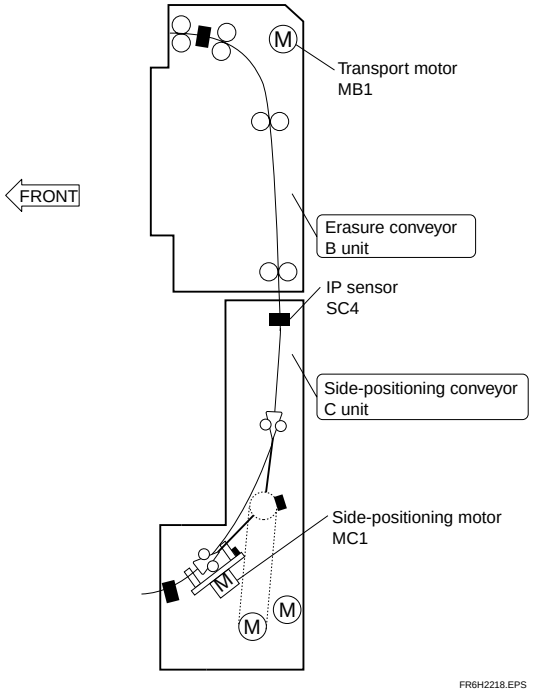

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SC4 normal?
N
Replace the sensor SC4.
☞"Service Parts List Volume: 05D REF.8"
Y ☞"11.2 Checking SC1, SC2, SC3 and SC4"
Motor MC3 normal?
N
Replace the motor MC3.
☞"Check, Replacement, and Adjustment Volume: 7.8 Motor (MC3)"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.5 Motor (MZ1)"
Y ☞"12.4 Checking the FFM12A Board"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2506.EPS

11363

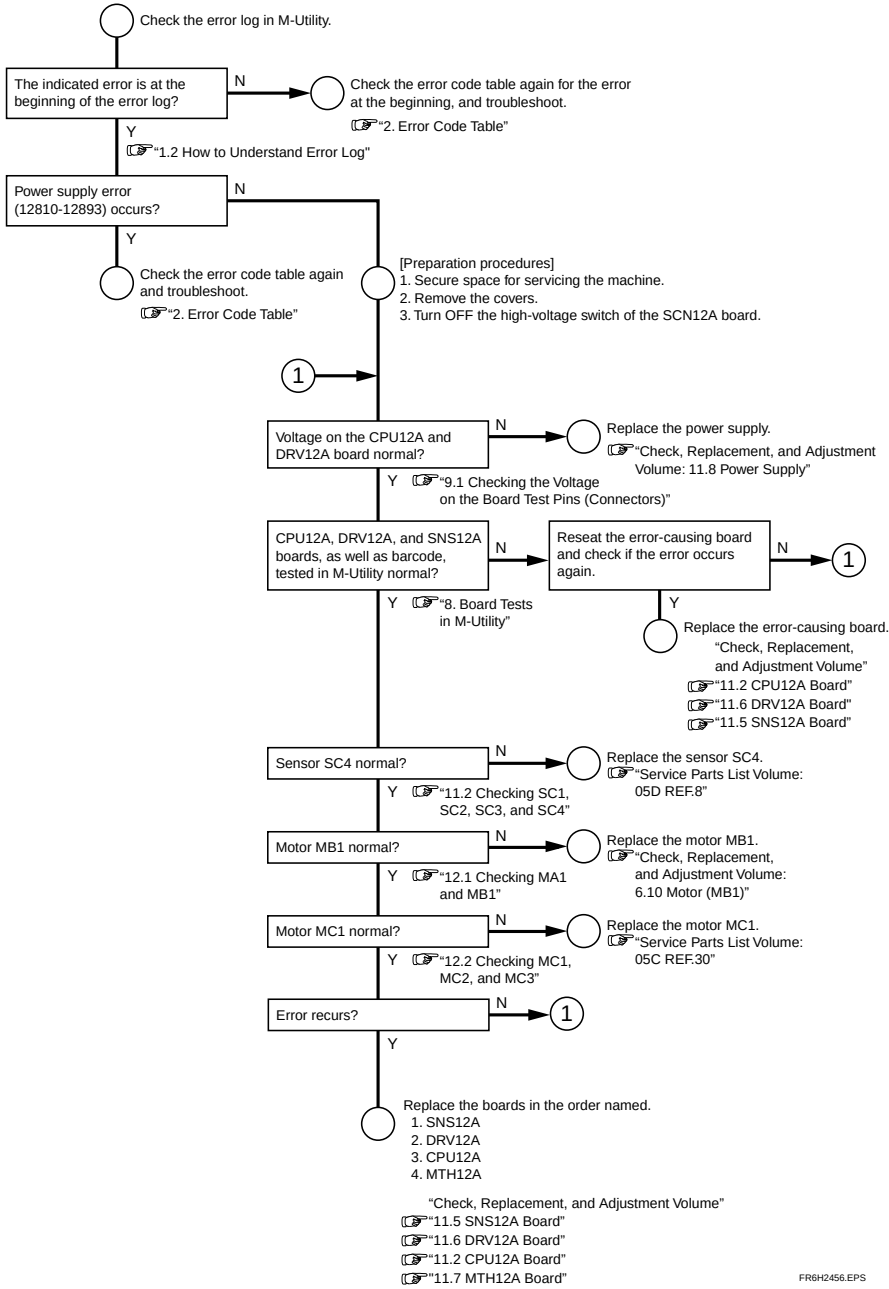
11363 Erasure conveyance error

During routine processing, the MC3 and MB1 are driven (counterclockwise) to perform erasure conveyance of the IP after reading, but the SC4 does not transition to OPEN.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SC4 normal?
N
Replace the sensor SC4.
☞"Service Parts List Volume: 05D REF.8"
Y ☞"11.2 Checking SC1, SC2, SC3, and SC4"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MC1 normal?
N
Replace the motor MC1.
☞"Service Parts List Volume: 05C REF.30"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2456.EPS

11371, 11372, 11373, 14372, 14373

11371 Load IP drop

During bootup and routine processing, the MB1 is driven (counterclockwise) to reload the IP due to the load IP drop retry (14373) or load IP suction failure retry (14372), but the SB1 does not transition to OPEN within the specified period of time.

11372 Load IP suction error

During routine processing, the PA1 is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN within the specified period of time. Retries (four times or more) are performed, but error results.

11373 Load IP drop

During routine processing, the PA1 is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN at the time when the IP is released. Retries (four times or more) are performed, but error results.

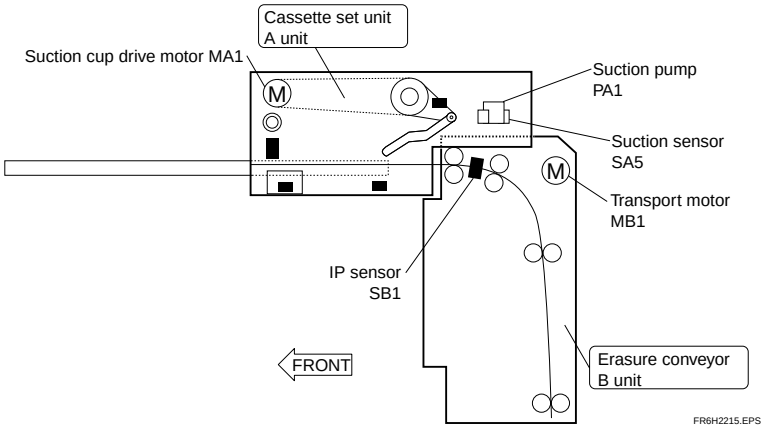
14372 Load IP suction failure retry

During routine processing, the PA1 is tuned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN within the specified period of time, so that retries (within three times) are performed.

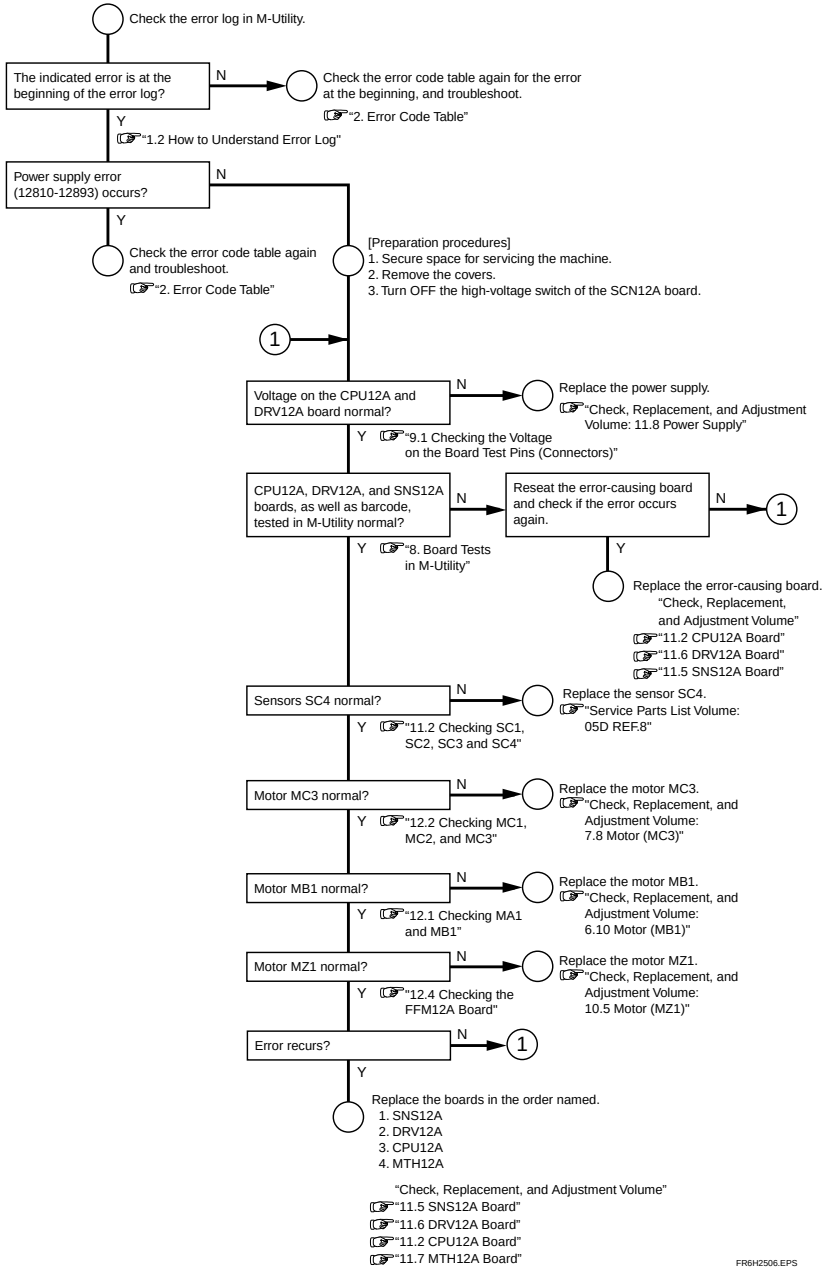
14373 Load IP drop retry

During routine processing, the PA1 is turned ON and the MA1 is driven (counterclockwise) to load the IP into the cassette, but the SA5 transitions to OPEN at the time when the IP is released, so that retries (within three times) are performed.

■ I/O Locations



■ Analysis Flow

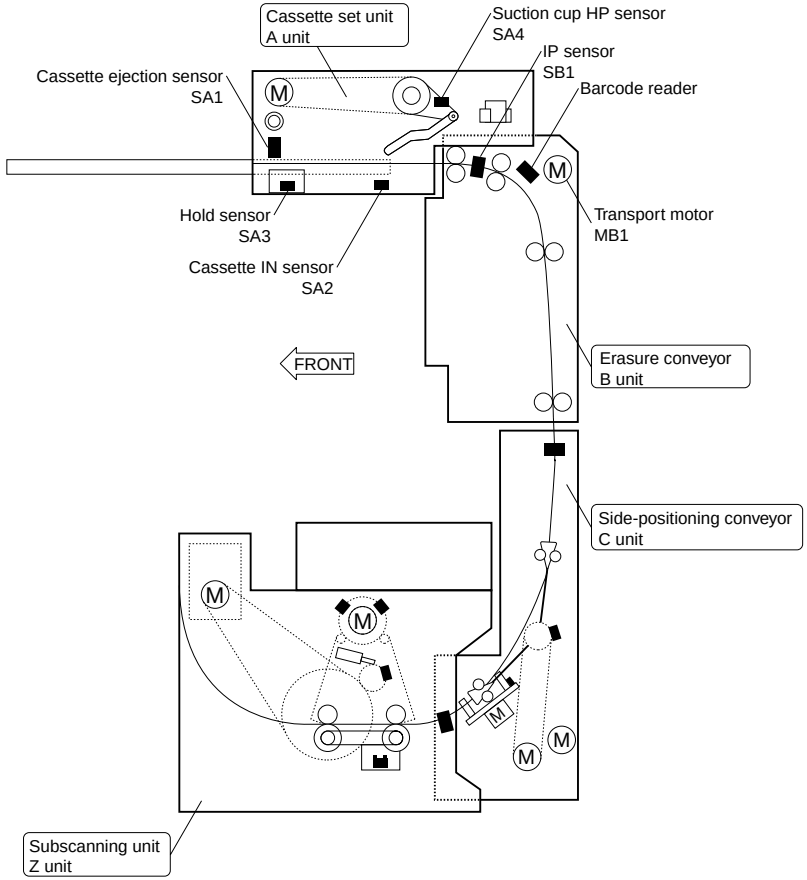

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensors SC4 normal?
N
Replace the sensor SC4.
☞"Service Parts List Volume: 05D REF.8"
Y ☞"11.2 Checking SC1, SC2, SC3 and SC4"
Motor MC3 normal?
N
Replace the motor MC3.
☞"Check, Replacement, and Adjustment Volume: 7.8 Motor (MC3)"
Y ☞"12.2 Checking MC1, MC2, and MC3"
Motor MB1 normal?
N
Replace the motor MB1.
☞"Check, Replacement, and Adjustment Volume: 6.10 Motor (MB1)"
Y ☞"12.1 Checking MA1 and MB1"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.5 Motor (MZ1)"
Y ☞"12.4 Checking the FFM12A Board"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2506.EPS

11380

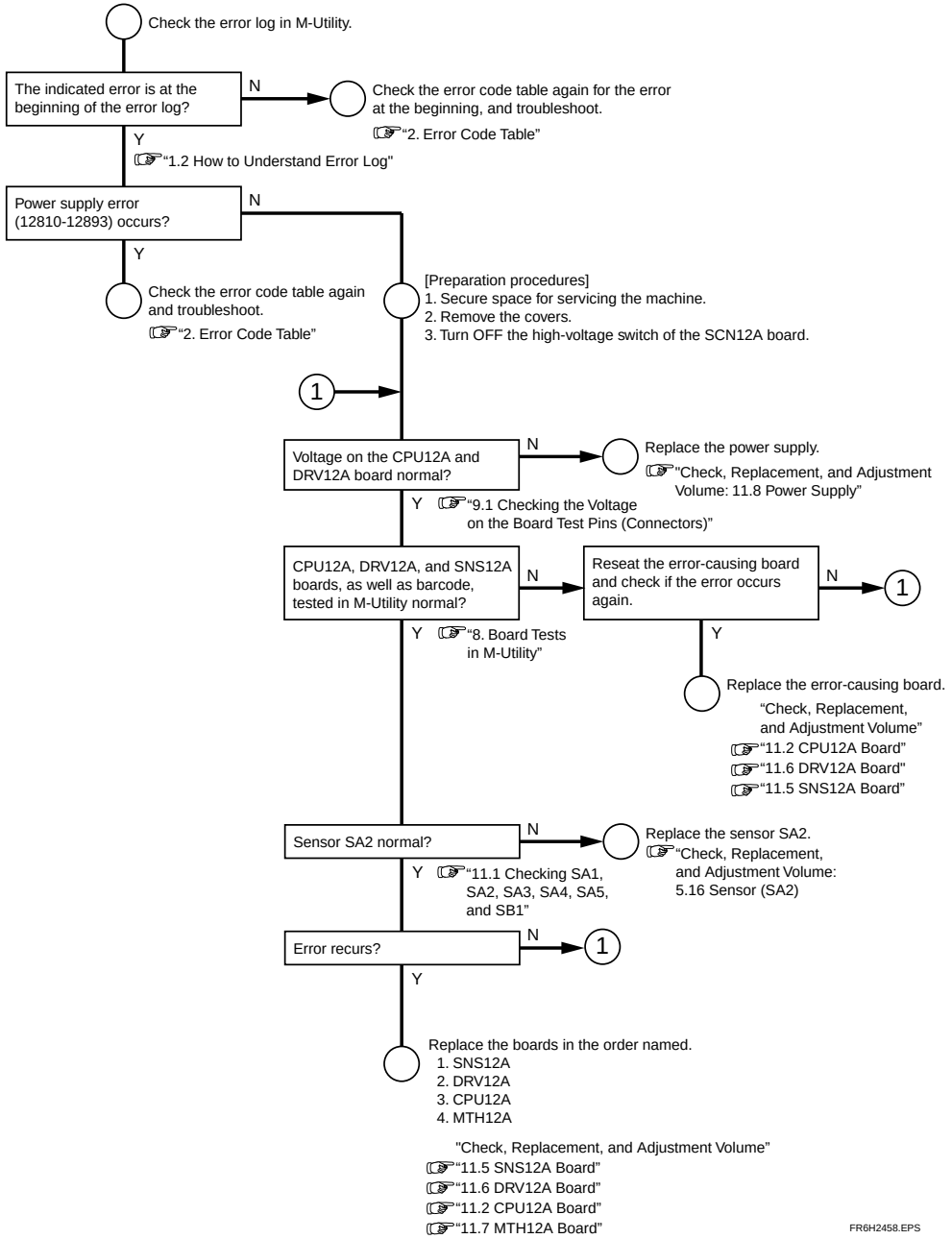
11380 Maximum empty cassette setting

During bootup, an attempt is made to eject (load) the remaining IP into the cassette, but the cassette has not been set.

■ I/O Locations



■ Analysis Flow

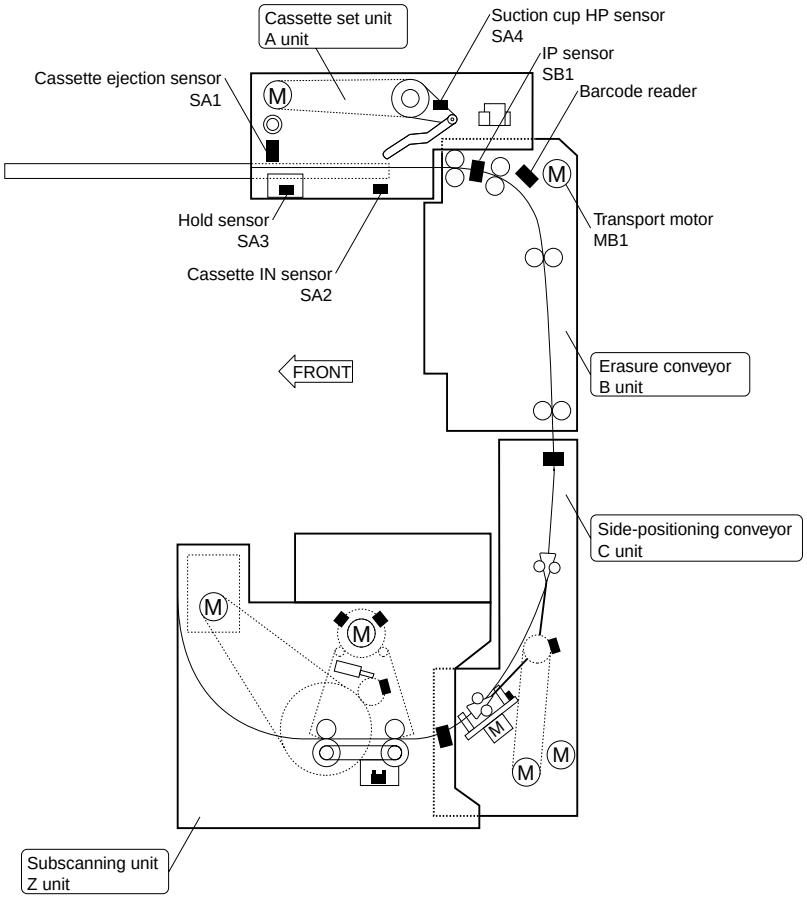

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA2 normal?
N
Replace the sensor SA2.
☞"Check, Replacement, and Adjustment Volume: 5.16 Sensor (SA2)
Y ☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2458.EPS

11387

11387 Recovery IP processing

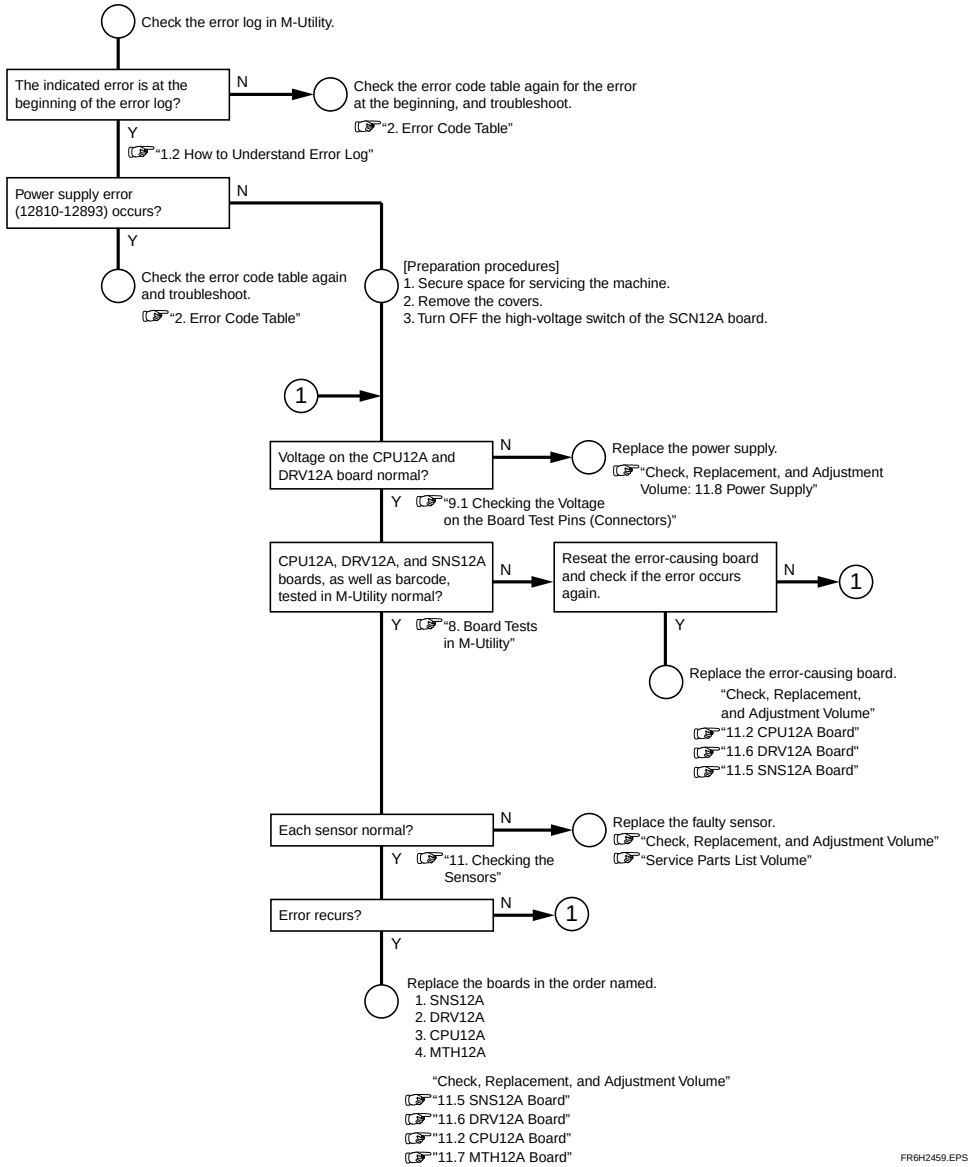
During bootup, the remaining IP that has not been erased is detected.

■ I/O Locations



FR6H2205.EPS

■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Each sensor normal?
N
Replace the faulty sensor.
☞"Check, Replacement, and Adjustment Volume"
☞"Service Parts List Volume"
Y ☞"11. Checking the Sensors"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

FR6H2459.EPS

12313, 13314

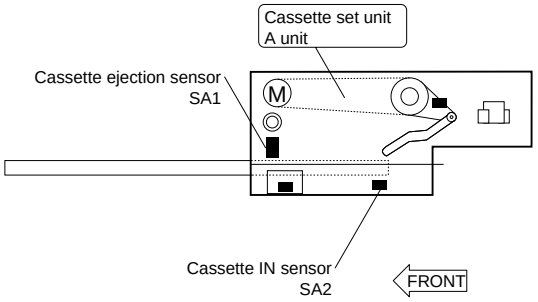
12313 Cassette not detected

During routine processing, while the SolA1 is tuned ON to hold the cassette, the cassette is pulled all the way out of the shutter, and SA1 transitions to OPEN.

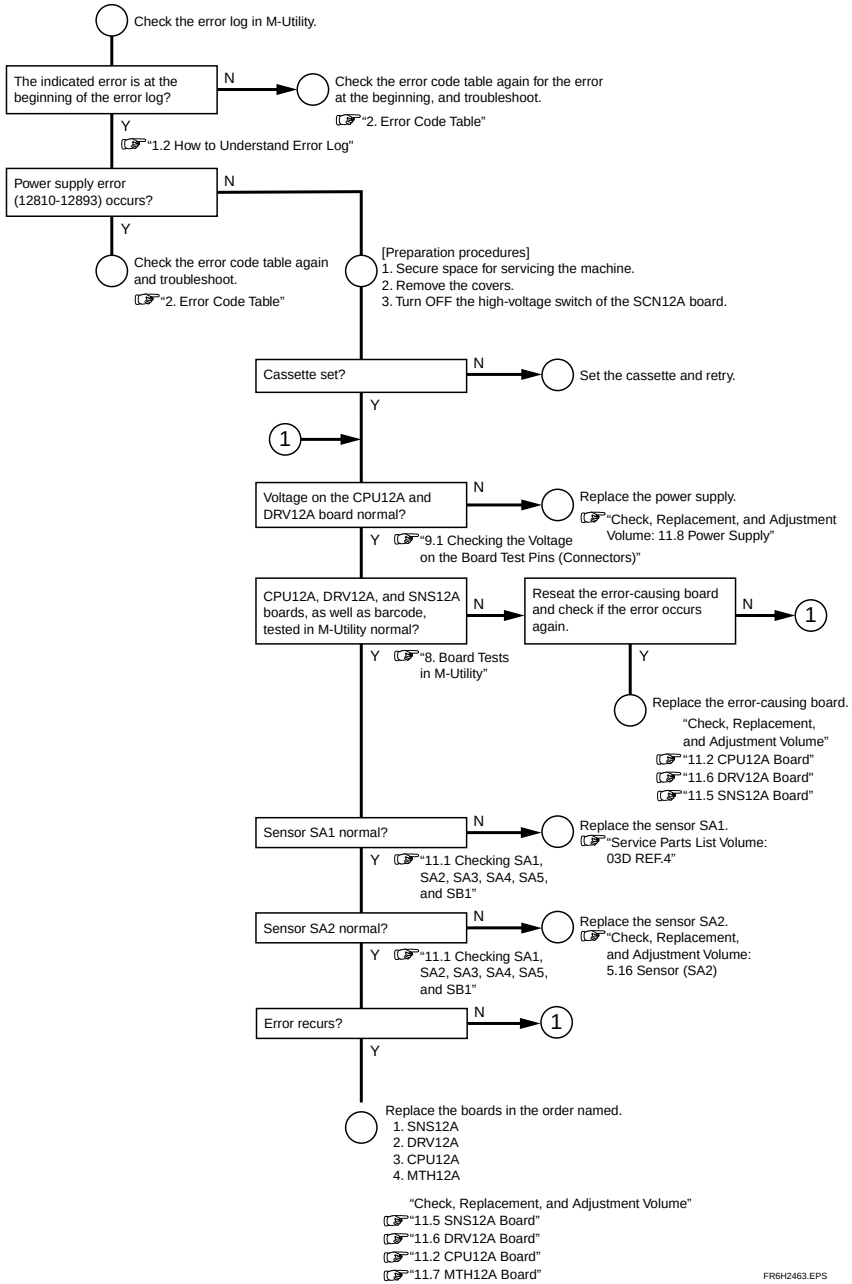
13314 Cassette detection logic error

During routine processing, the SA2 is CLOSE (the cassette is detected), but the SA1 is OPEN (the shutter is closed).

■ I/O Locations



■ Analysis Flow

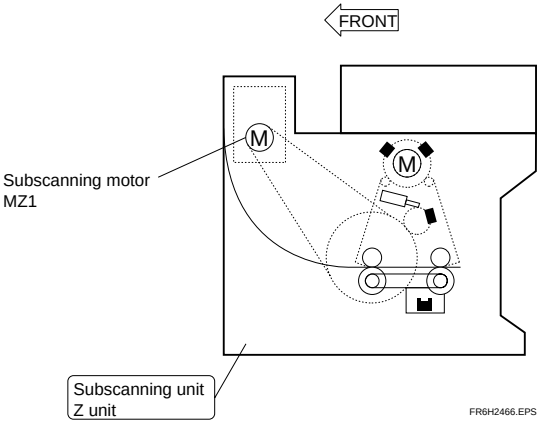

Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
Cassette set?
N
Set the cassette and retry.
Y
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, DRV12A, and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
☞"11.5 SNS12A Board"
Sensor SA1 normal?
N
Replace the sensor SA1.
☞"Service Parts List Volume: 03D REF.4"
Y
☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Sensor SA2 normal?
N
Replace the sensor SA2.
☞"Check, Replacement, and Adjustment Volume: 5.16 Sensor (SA2)"
Y
☞"11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1"
Error recurs?
N
1
Y
Replace the boards in the order named.
1. SNS12A
2. DRV12A
3. CPU12A
4. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2463.EPS

12345

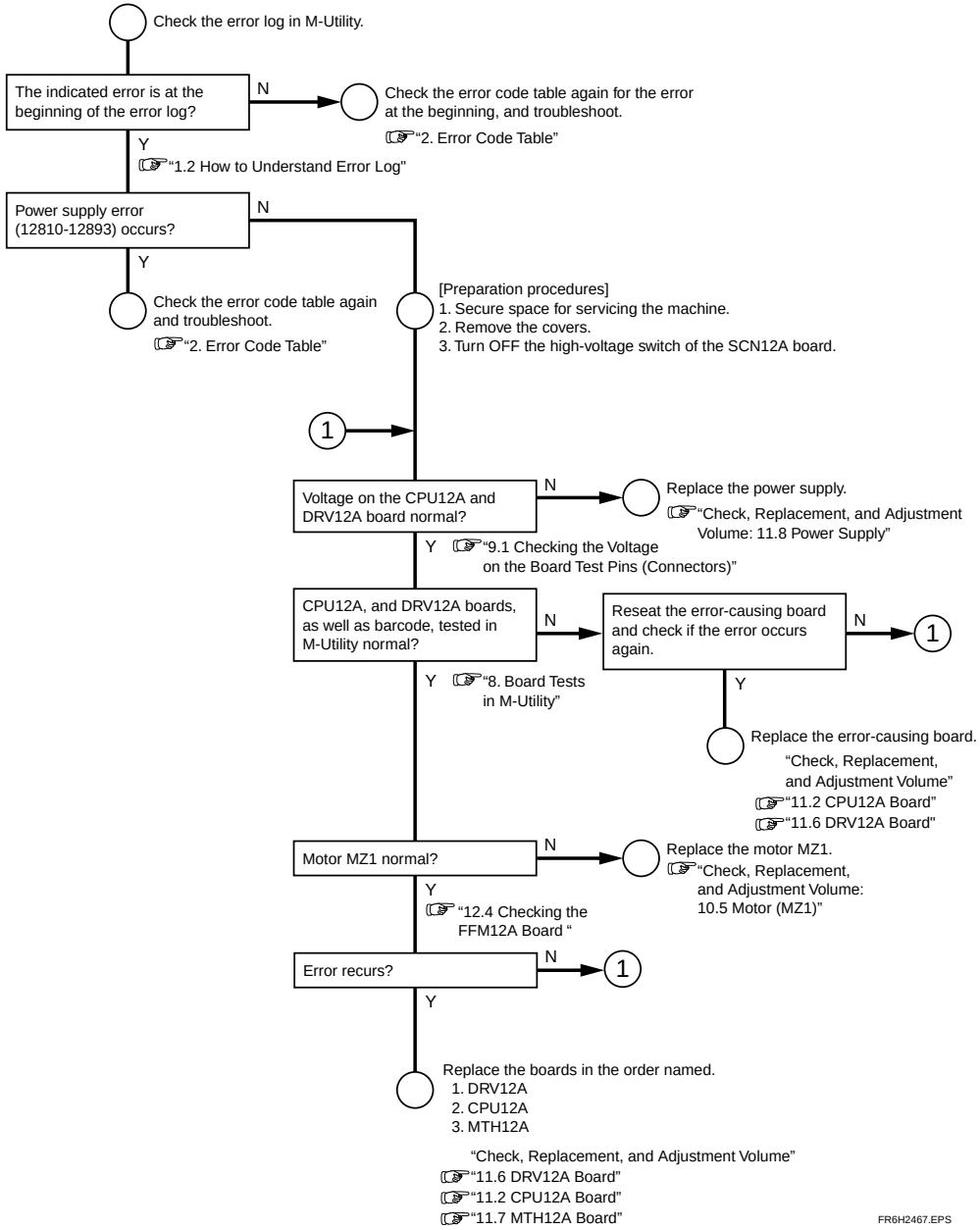
12345 FFM drive W.F. disorder

During routine processing, wow-flutter error (irregular revolutions) of the FFM motor is detected.

■ I/O Locations



■ Analysis Flow


Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A and DRV12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A, and DRV12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.6 DRV12A Board"
Motor MZ1 normal?
N
Replace the motor MZ1.
☞"Check, Replacement, and Adjustment Volume: 10.5 Motor (MZ1)"
Y
☞"12.4 Checking the FFM12A Board "
Error recurs?
N
1
Y
Replace the boards in the order named.
1. DRV12A
2. CPU12A
3. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2467.EPS

12324, 14324

12324 Barcode reading error

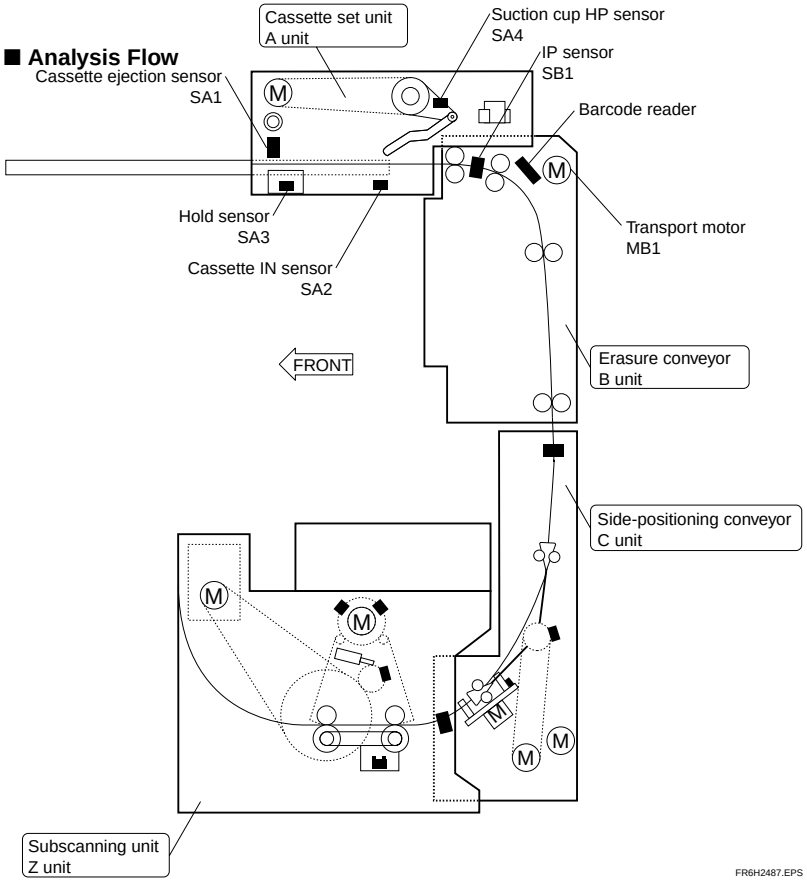
During routine processing, an attempt to read the barcode for feed conveyance fails. Retries (four times or more) are performed, but error results.

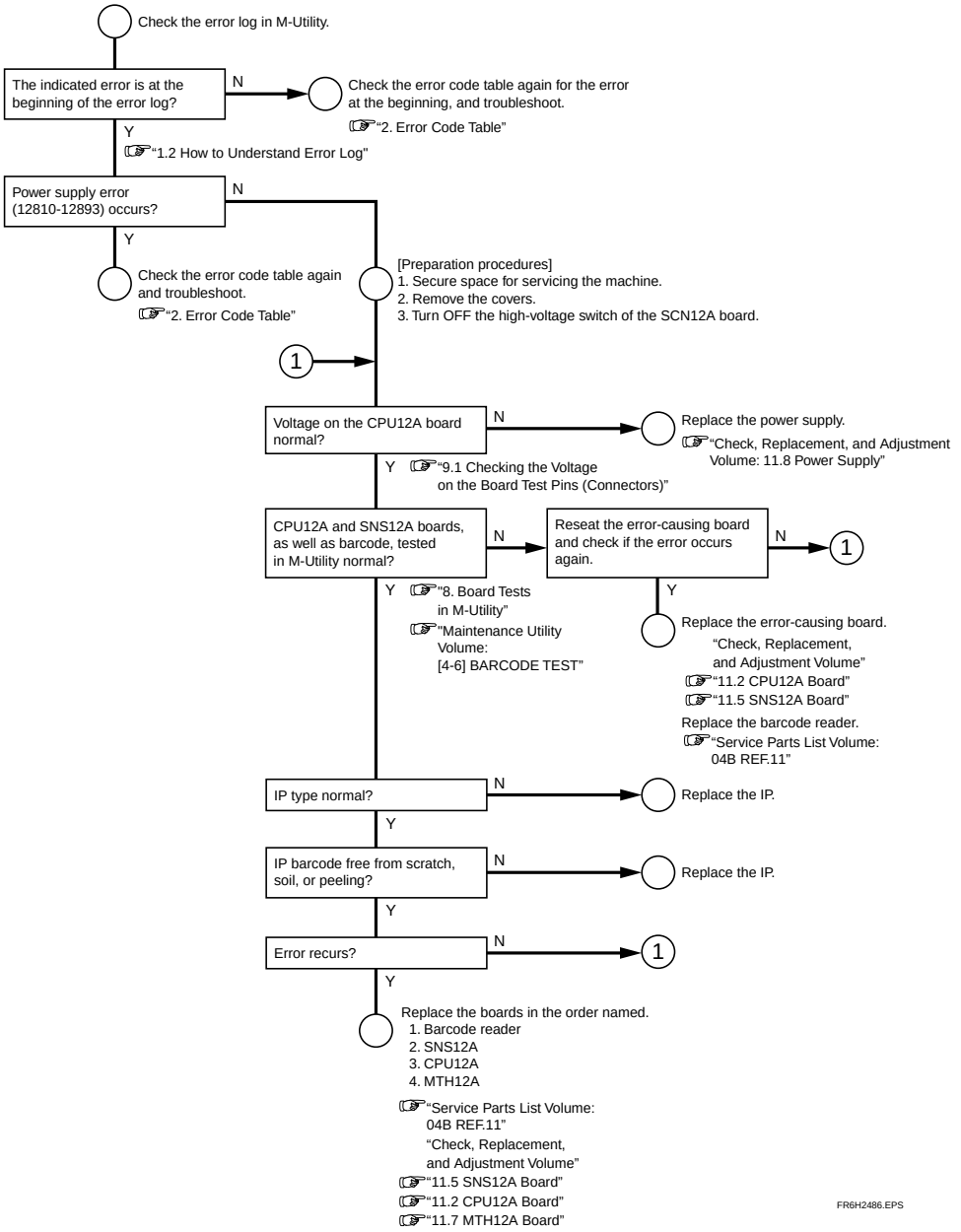
14324 Barcode reading retry

During routine processing, because an attempt to read the barcode for feed conveyance fails, retries (within three times) are performed.

■ I/O Locations

■ Analysis Flow




Check the error log in M-Utility.
The indicated error is at the beginning of the error log?
N
Check the error code table again for the error at the beginning, and troubleshoot.
☞"2. Error Code Table"
Y
☞"1.2 How to Understand Error Log"
Power supply error (12810-12893) occurs?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
[Preparation procedures]
1. Secure space for servicing the machine.
2. Remove the covers.
3. Turn OFF the high-voltage switch of the SCN12A board.
1
Voltage on the CPU12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A and SNS12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y ☞"8. Board Tests in M-Utility"
☞"Maintenance Utility Volume: [4-6] BARCODE TEST"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.5 SNS12A Board"
Replace the barcode reader.
☞"Service Parts List Volume: 04B REF.11"
IP type normal?
N
Replace the IP.
Y
IP barcode free from scratch, soil, or peeling?
N
Replace the IP.
Y
Error recurs?
N
1
Y
Replace the boards in the order named.
1. Barcode reader
2. SNS12A
3. CPU12A
4. MTH12A
☞"Service Parts List Volume: 04B REF.11"
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2486.EPS

5. Error Code Analysis Flow (Scanner)

10230

■ Error Occurrence Conditions

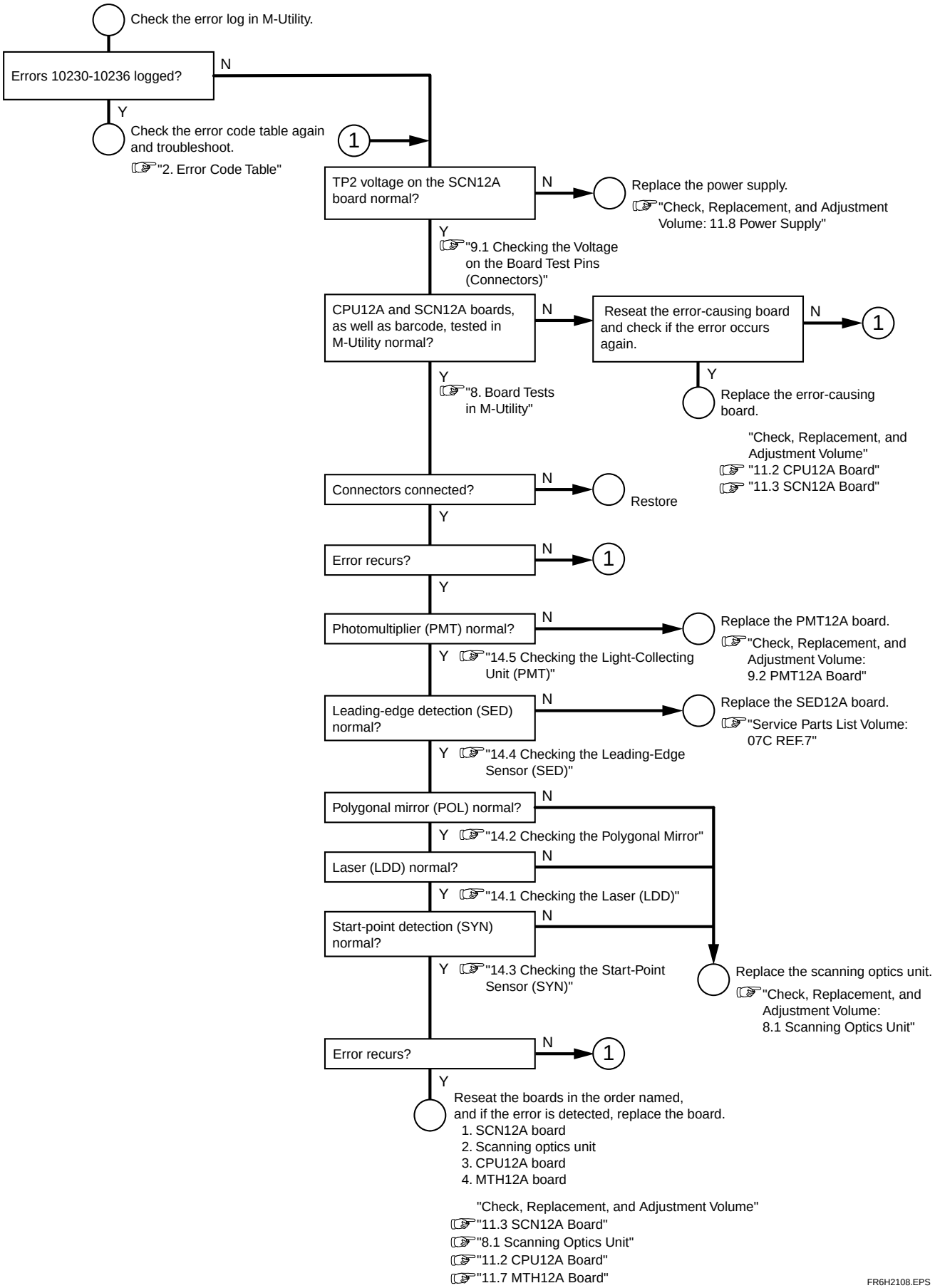
10230 Scanner power supply error during bootup

During bootup, because the connector (CN1 on the PMT12A board, CNE1 on the scanning optics unit, CNE2 on the scanning optics unit, CN1 on the SYN12A board, or CN1 on the LDD12A board) is disconnected, the laser (LDD), start-point detection (SYN), and photomultiplier (PMT) functions are disabled.

Because the laser is not enabled, the leading-edge detection (SED) cannot be performed (detail code: D0F603).

Note that if the HV is OFF, the detail code is D0F403.

■ Analysis Flow



10231

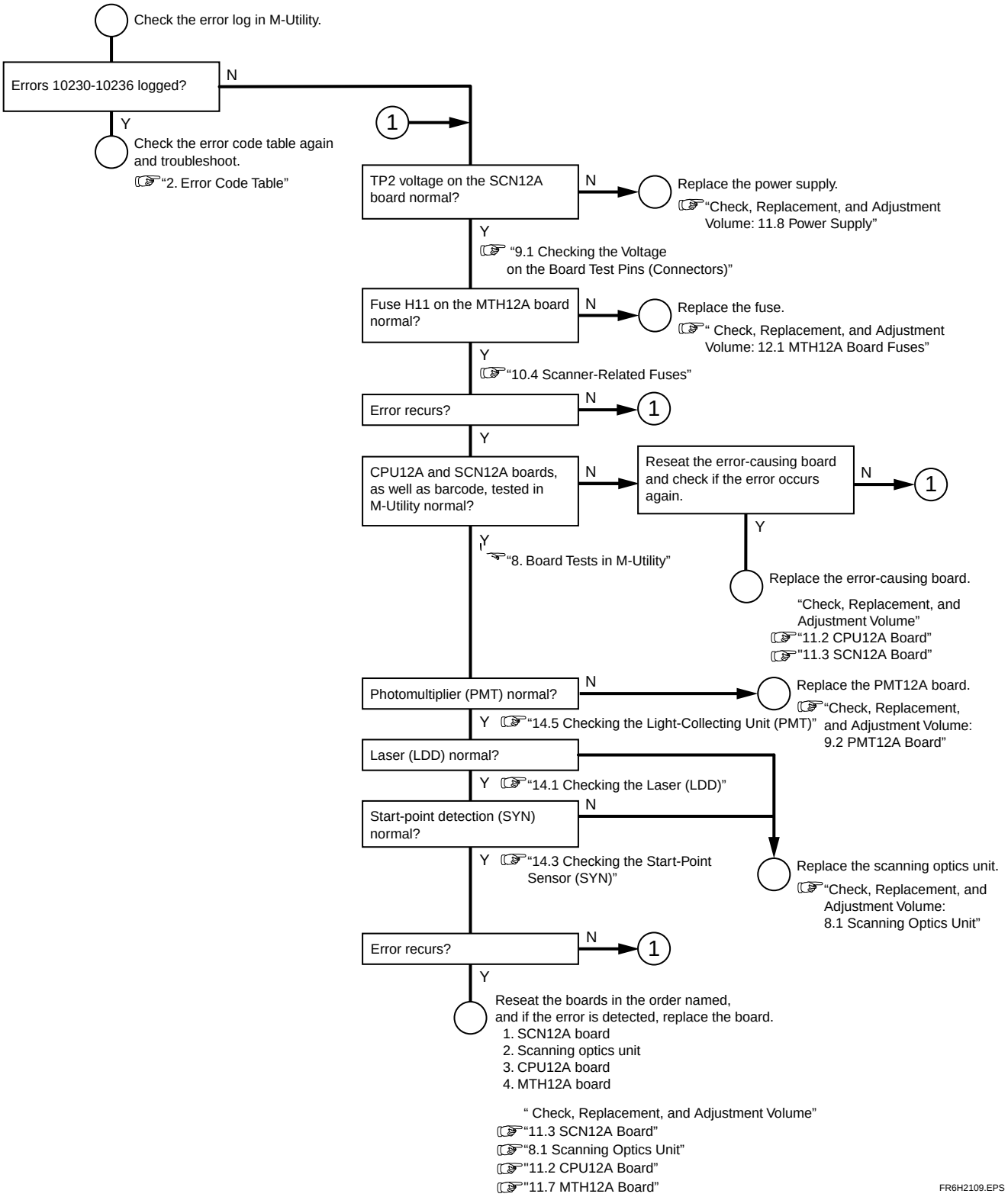
■ Error Occurrence Conditions

10231 Scanner power supply error during bootup (1)

During bootup, because +15V is not supplied to the SCN12A board due to blow of the fuse (H11 on the MTH board) or +15V power supply error, most of the functions, except for the polygonal mirror (POL) and laser (LDD), are disabled (detail code: A0DF03).

Note that if the HV is OFF, the detail code is A0DD03.

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse H11 on the MTH12A board normal?
N
Replace the fuse.
☞" Check, Replacement, and Adjustment Volume: 12.1 MTH12A Board Fuses"
Y
☞"10.4 Scanner-Related Fuses"
Error recurs?
N
1
Y
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Y
☞"8. Board Tests in M-Utility"
Photomultiplier (PMT) normal?
N
Replace the PMT12A board.
☞"Check, Replacement, and Adjustment Volume: 9.2 PMT12A Board"
Y ☞"14.5 Checking the Light-Collecting Unit (PMT)"
Laser (LDD) normal?
Y ☞"14.1 Checking the Laser (LDD)"
Start-point detection (SYN) normal?
N
Y ☞"14.3 Checking the Start-Point Sensor (SYN)"
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
" Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"8.1 Scanning Optics Unit"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2109.EPS

10232

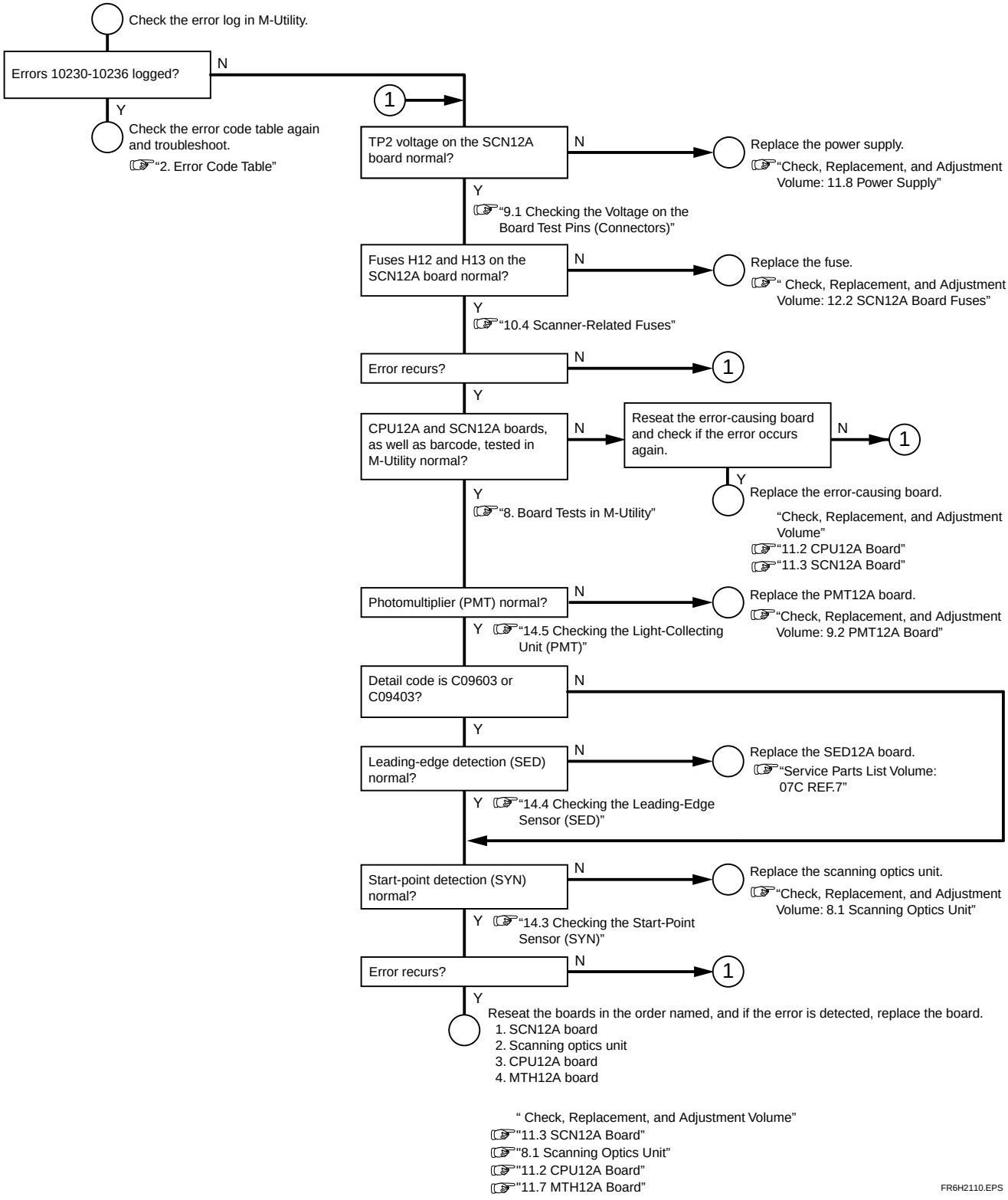
■ Error Occurrence Conditions

10232 Scanner power supply error during bootup (2)

During bootup, because the fuse (H12 on the SCN12A board) is blown, the photomultiplier (PMT) and start-point detection (SYN) functions are disabled (detail code: 809603).

Note that if the HV is OFF, the detail code is 809403.

■ Analysis Flow



10233

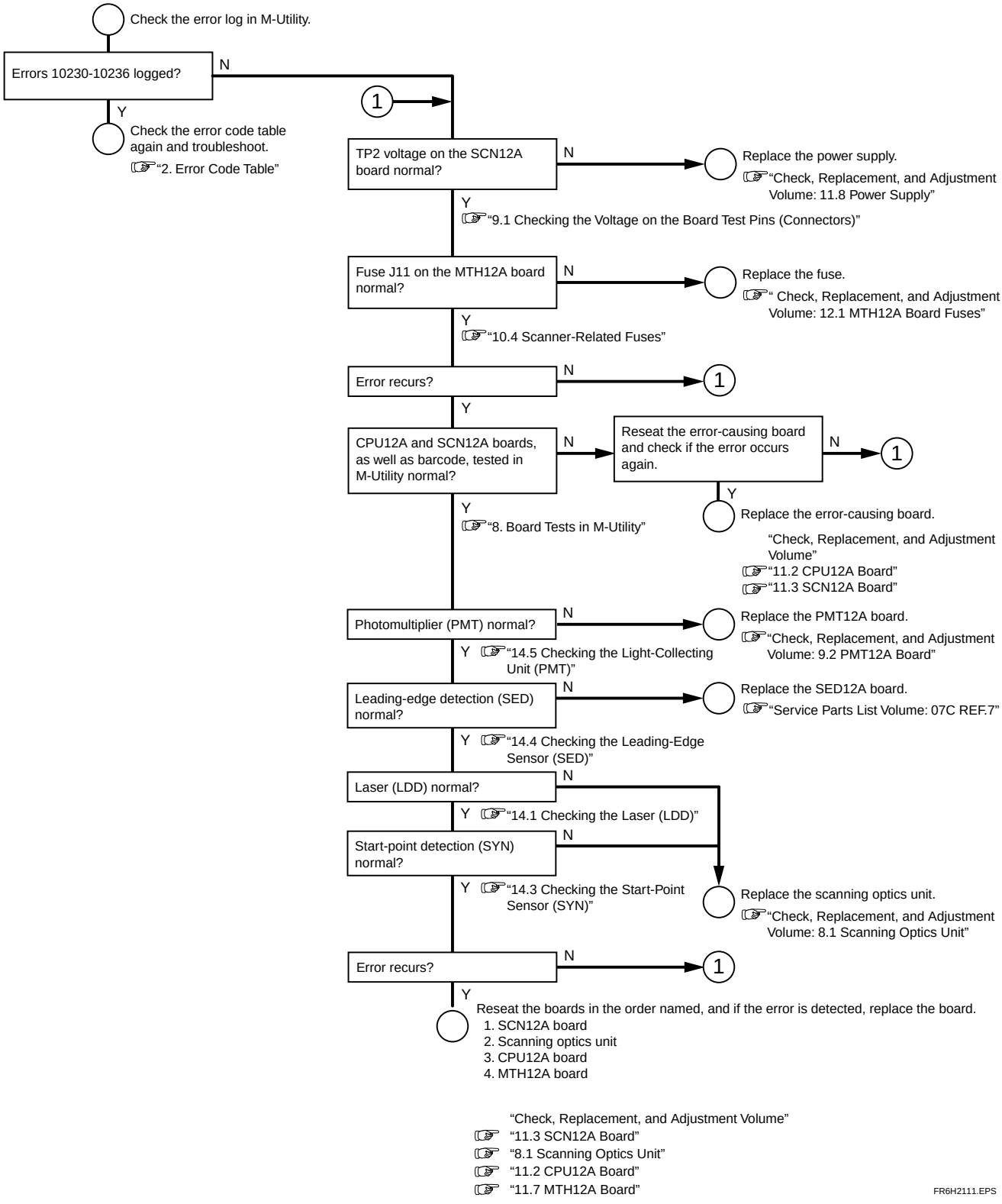
■ Error Occurrence Conditions

10233 Scanner power supply error during bootup (3)

During bootup, because the fuse (J11 on the MTH12A board) is blown or because -15V is not supplied to the SCN12A board, the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled.

Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C1DD03).

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse J11 on the MTH12A board normal?
N
Replace the fuse.
☞" Check, Replacement, and Adjustment Volume: 12.1 MTH12A Board Fuses"
Y
☞"10.4 Scanner-Related Fuses"
Error recurs?
N
1
Y
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Y
☞"8. Board Tests in M-Utility"
Photomultiplier (PMT) normal?
N
Replace the PMT12A board.
☞"Check, Replacement, and Adjustment Volume: 9.2 PMT12A Board"
Y ☞"14.5 Checking the Light-Collecting Unit (PMT)"
Leading-edge detection (SED) normal?
N
Replace the SED12A board.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Laser (LDD) normal?
N
Y ☞"14.1 Checking the Laser (LDD)"
Start-point detection (SYN) normal?
N
Y ☞"14.3 Checking the Start-Point Sensor (SYN)"
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞ "11.3 SCN12A Board"
☞ "8.1 Scanning Optics Unit"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
FR6H2111.EPS

10234

■ Error Occurrence Conditions

10234 Scanner power supply error during bootup (4)

- During bootup, because the fuse (J12 on the SCN12A board) or the fuse (H12 on the SCN12A board) is blown, ±15V is not supplied to the SCN12A board, and the photomultiplier (PMT), start-point detection (SYN), laser (LDD), and SCN board (PLL) functions are disabled.

  Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0DC03).

- During bootup, because -15V is not supplied to the SCN12A board due to blow of the fuse (J11 on the MTH12A board) or -15V (SLOT4) power supply error, the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled.

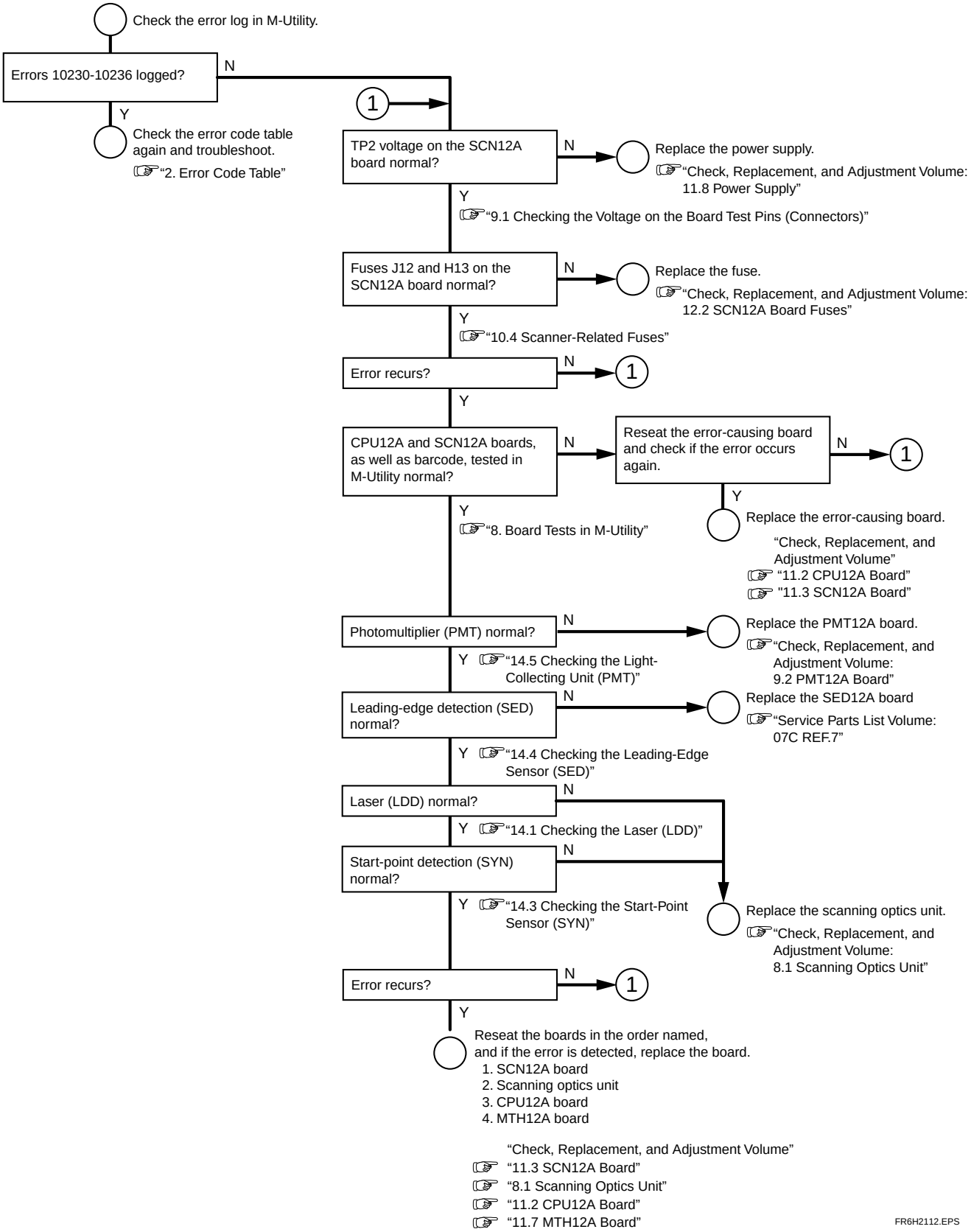
  Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0D400).

- During bootup, because ±15V is not supplied, except for the laser (LDD), due to blow of the fuse (J11 on the MTH12A board, or J12, H12, or H14 on the SCN board), the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled.

  Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: C0D603).

  Note that if the HV is OFF, the detail code is C0D400.

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuses J12 and H13 on the SCN12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12.2 SCN12A Board Fuses"
Y
☞"10.4 Scanner-Related Fuses"
Error recurs?
N
1
Y
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
Y
☞"8. Board Tests in M-Utility"
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞ "11.2 CPU12A Board"
☞ "11.3 SCN12A Board"
Photomultiplier (PMT) normal?
N
Replace the PMT12A board.
☞"Check, Replacement, and Adjustment Volume: 9.2 PMT12A Board"
Y ☞"14.5 Checking the Light-Collecting Unit (PMT)"
Leading-edge detection (SED) normal?
N
Replace the SED12A board
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Laser (LDD) normal?
N
Y ☞"14.1 Checking the Laser (LDD)"
Start-point detection (SYN) normal?
N
Y ☞"14.3 Checking the Start-Point Sensor (SYN)"
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞ "11.3 SCN12A Board"
☞ "8.1 Scanning Optics Unit"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
FR6H2112.EPS

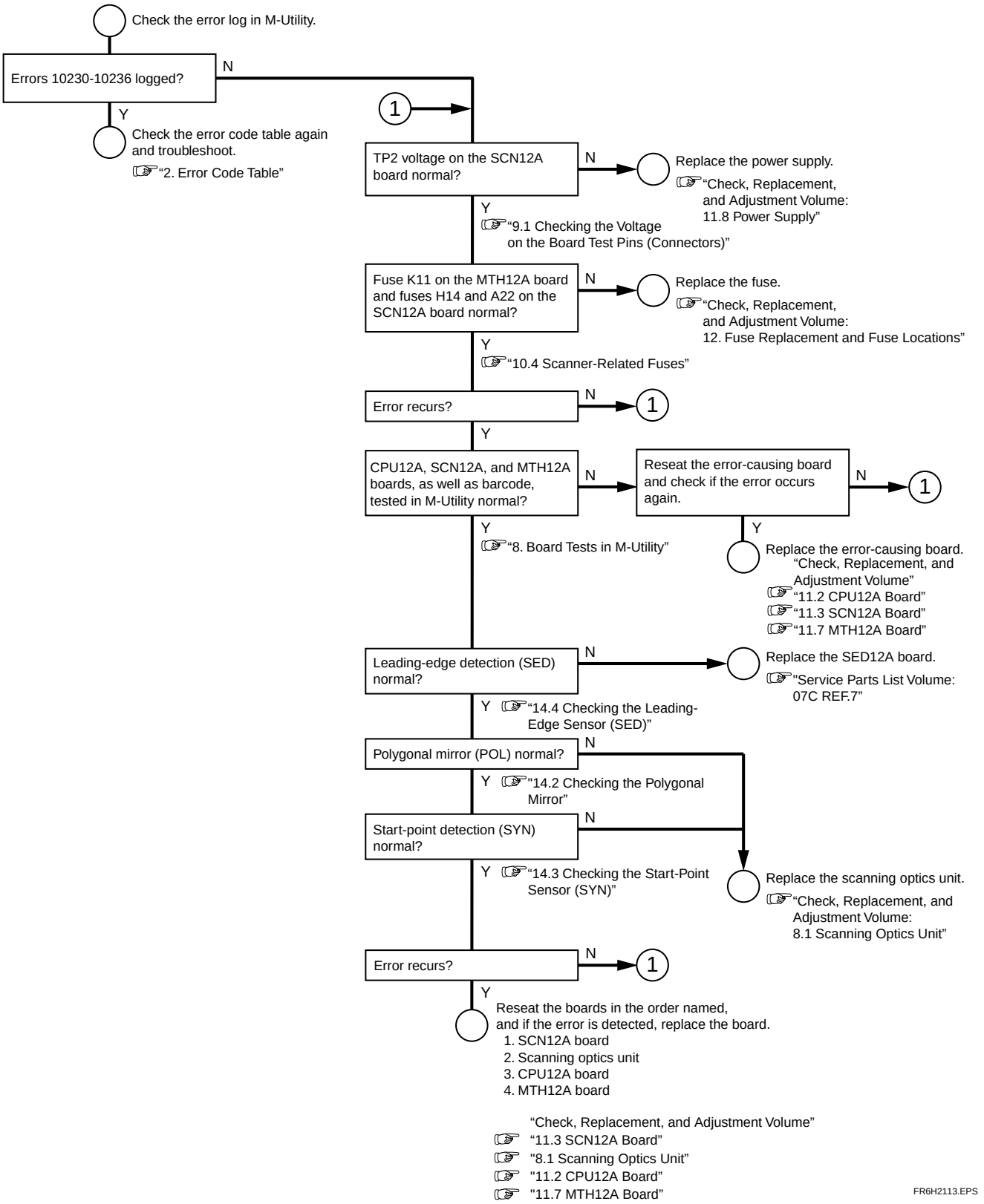
10235

■ Error Occurrence Conditions

10235 Scanner power supply error during bootup (5)

- During bootup, because 24V is not supplied to the SCN12A board due to blow of the fuse (K11 on the MTH12A board) or 24V (SLOT5) power supply error, the polygonal mirror (POL) function is disabled (detail code: D01403).
- During bootup, because the fuses (H14 and A22 on the SCN board) are blown or because 5V is not supplied to the SYN12A board and SED12A board, the leading-edge detection (SED) and start-point detection (SYN) functions are disabled (detail code: C01403).

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse K11 on the MTH12A board and fuses H14 and A22 on the SCN12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.4 Scanner-Related Fuses"
Error recurs?
N
1
Y
CPU12A, SCN12A, and MTH12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
☞"11.7 MTH12A Board"
Leading-edge detection (SED) normal?
N
Replace the SED12A board.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Polygonal mirror (POL) normal?
N
Y ☞"14.2 Checking the Polygonal Mirror"
Start-point detection (SYN) normal?
N
Y ☞"14.3 Checking the Start-Point Sensor (SYN)"
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞ "11.3 SCN12A Board"
☞ "8.1 Scanning Optics Unit"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
FR6H2113.EPS

10236

■ Error Occurrence Conditions

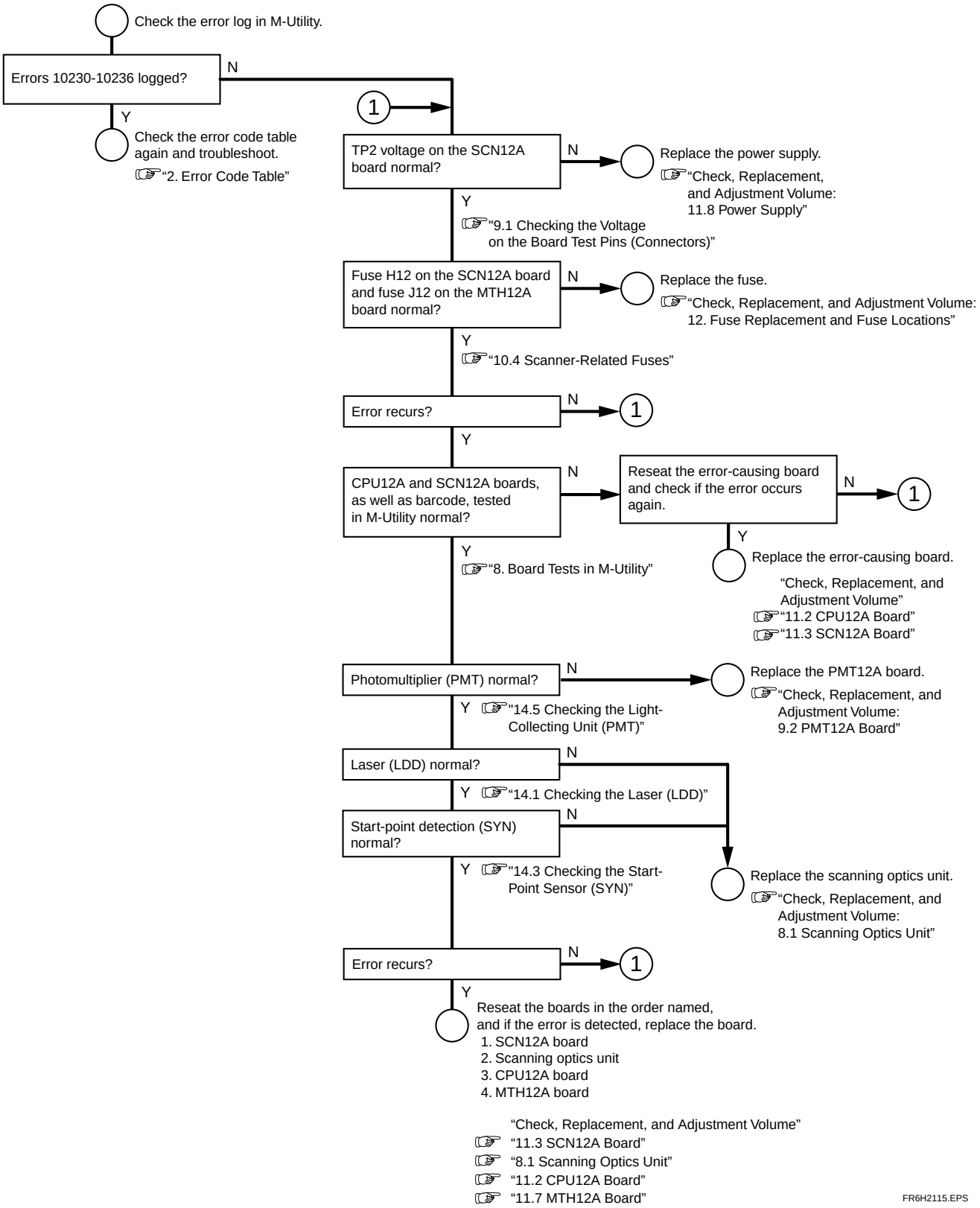
10236 Scanner power supply error during bootup (6)

During bootup, because ±15V is not supplied to the SYN12A board, PMT12A board, and LDD12A board due to blow of the fuses (J12 and H12 on the SCN board), the photomultiplier (PMT), start-point detection (SYN), and laser (LDD) functions are disabled.

Because the laser (LDD) is not enabled, the leading-edge detection (SED) cannot be performed (detail code: 819603).

Note that if the HV is OFF, the detail code is 819403.

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse H12 on the SCN12A board and fuse J12 on the MTH12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.4 Scanner-Related Fuses"
Error recurs?
N
1
Y
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Y
☞"8. Board Tests in M-Utility"
Photomultiplier (PMT) normal?
N
Replace the PMT12A board.
☞"Check, Replacement, and Adjustment Volume: 9.2 PMT12A Board"
Y ☞"14.5 Checking the Light-Collecting Unit (PMT)"
Laser (LDD) normal?
N
Y ☞"14.1 Checking the Laser (LDD)"
Start-point detection (SYN) normal?
N
Y ☞"14.3 Checking the Start-Point Sensor (SYN)"
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞ "11.3 SCN12A Board"
☞ "8.1 Scanning Optics Unit"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
FR6H2115.EPS

10281, 12201, 12281, 13201, 14281

■ Error Occurrence Conditions

10281 Start-point detection error during bootup (1)

During bootup, because the signal from the start-point detection (SYN) is faulty, the SCN12A board does not operate normally (detail code: 801C03).

12201 Start-point detection error

During bootup and routine processing, error for the start-point detection signal (SSH, SSL) is detected.

12281 Start-point detection error (1)

During routine processing, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801C03).

Alternatively, the disabled state of the start-point detection (SYN) function, and error for the PLL function on the SCN12A board are detected (detail code: 800C03).

Alternatively, during routine processing, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801401).

13201 Start-point detection error

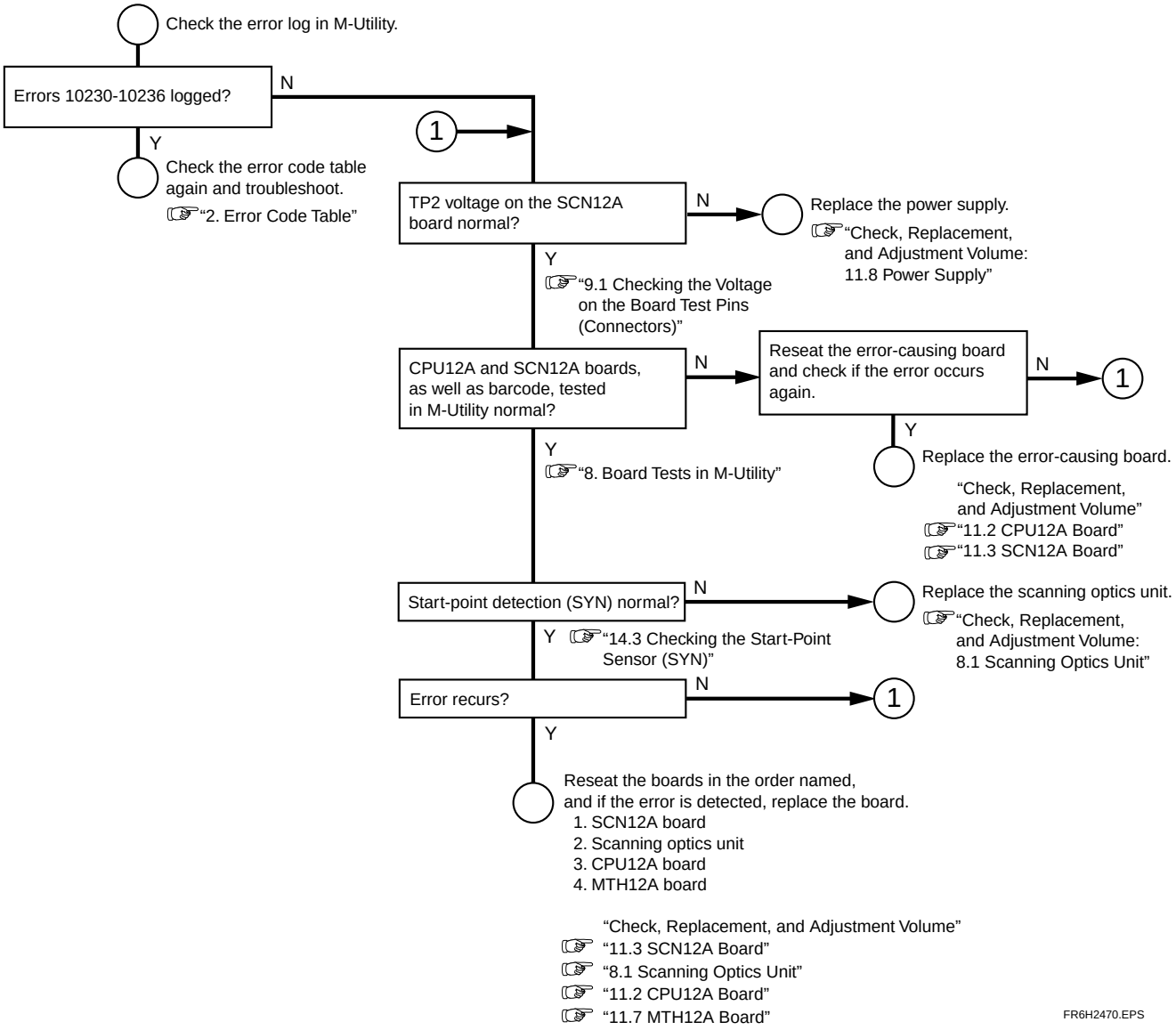
During M-Utility operation, only error for the start-point detection signal (SSH, SSL) is detected.

14281 Start-point detection error during bootup (1)

- During bootup, the disabled state of the start-point detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801C03).

  Alternatively, the disabled state of the start-point detection (SYN) function and error for the PLL function on the SCN12A board are detected (detail code: 800C03). Alternatively, during routine processing, the disabled state of the start-point-detection (SYN) function, and error for the PLL function and polygon rotation detection function on the SCN12A board are detected (detail code: 801401).
- During bootup, the start-point detection (SYN) function is disabled (detail code: 801402). Alternatively, the start-point detection (SSH, SSL) cannot be performed (detail code: 800002).

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Y
☞"8. Board Tests in M-Utility"
Start-point detection (SYN) normal?
N
Replace the scanning optics unit.
☞"Check, Replacement, and Adjustment Volume: 8.1 Scanning Optics Unit"
Y
☞"14.3 Checking the Start-Point Sensor (SYN)"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"8.1 Scanning Optics Unit"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2470.EPS

10298, 14298

■ Error Occurrence Conditions

10298 Before-reading scanner retry error

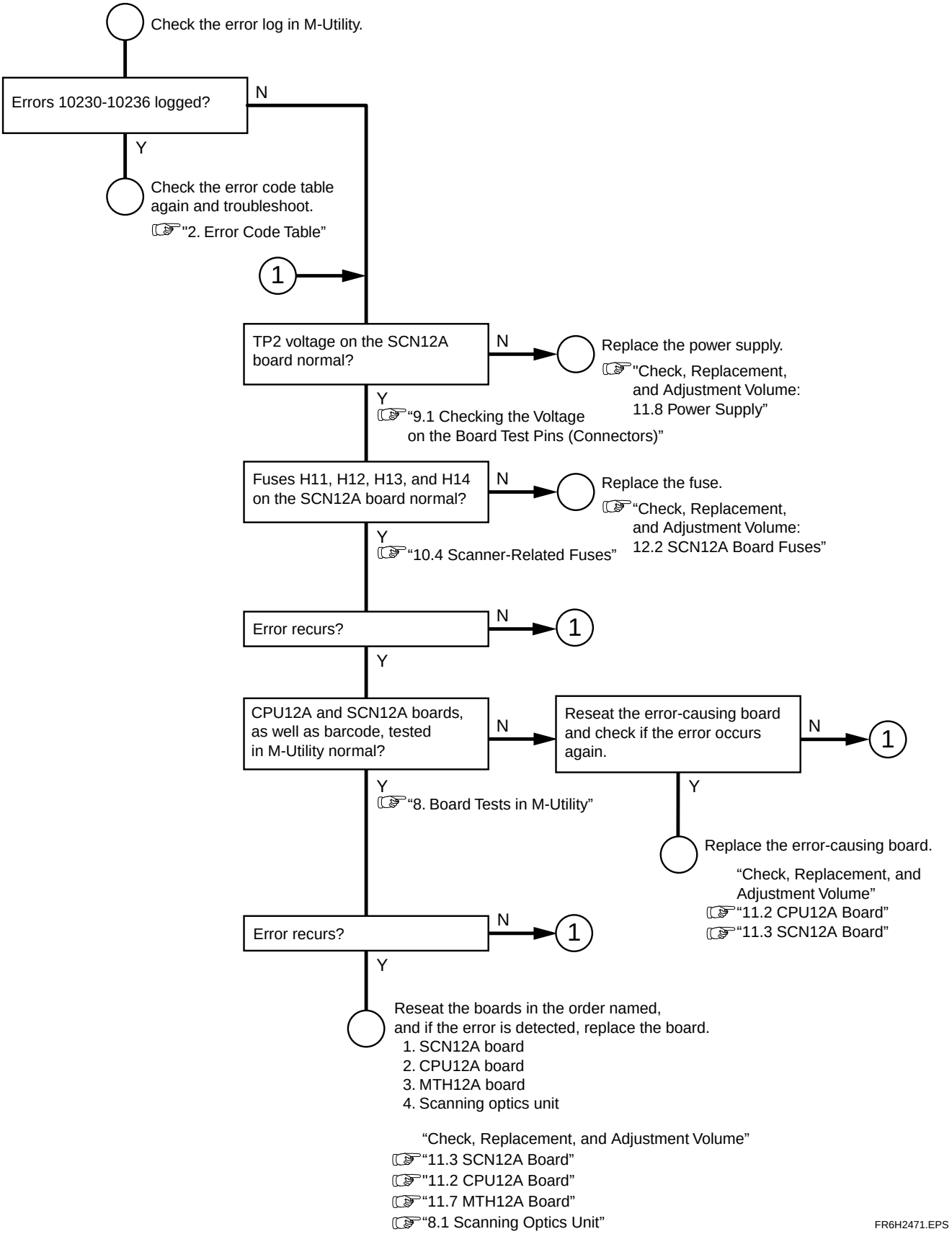
During routine processing, because the scanner-related error is detected, the IP is returned to the cassette and the scanner is initialized.

The routine processing is retried again, but the scanner-related error recurs.

14298 Before-reading scanner retry error

During routine processing, because the scanner-related error is detected, the IP is returned to the cassette and the scanner is initialized.

■ Analysis Flow



11208, 11272, 11273, 12212, 12272, 12273, 13208, 13212, 14283

■ Error Occurrence Conditions

11208 Laser drive current error

During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.

11272 Insufficient laser light intensity

During bootup, laser OK signal (LD1OKH, LD1OKL) error is detected.

11273 Laser life warning

During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.

12212 Laser power error

During bootup and routine processing, only error for the laser OK signal (LD1OKH, LD1OKL) is detected.

12272 Insufficient laser light intensity (1)

During routine processing, the laser light intensity is less than 50%, and the laser light intensity error signal (LD1OKL, LD1OKH) is detected (detail code: 004000).

Alternatively, the laser light intensity error signal (LD1OKL, LD1OKH) and laser drive current value (LDIF) error are detected (detail code: 014000).

12273 Laser life warning

During bootup and routine processing, the laser drive current value (LDIF) is more than 1.4 times the factory default value.

13208 Laser drive current error

During M-Utility operation, the laser drive current value (LDIF) is more than 1.4 times the factory default value.

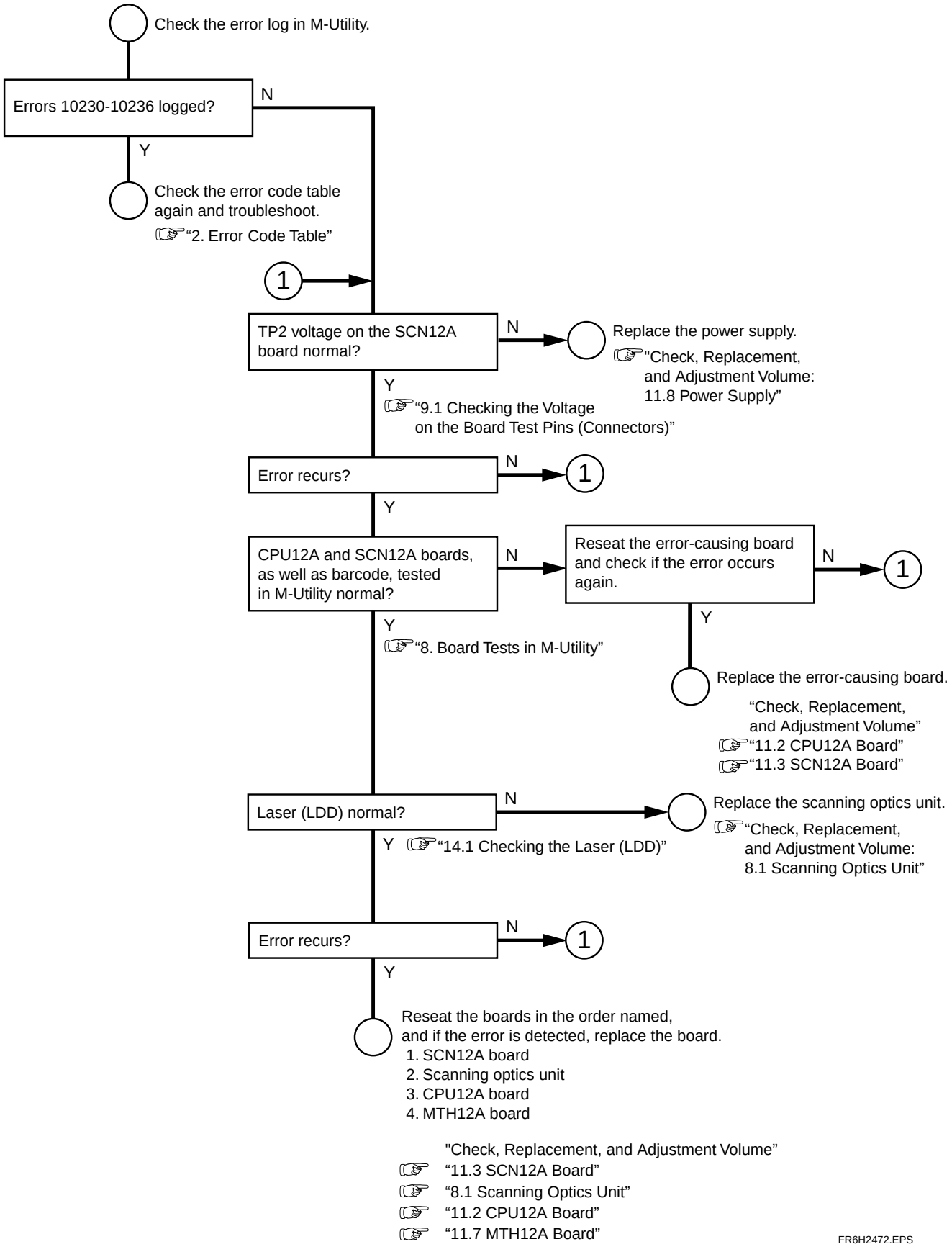
13212 Laser light intensity error

During M-Utility operation, only error for the laser OK signal (LD1OKH, LD1OKL) is detected.

14283 Scanning optics unit board error During bootup

During bootup, the laser (LDD), start-point detection (SYN), and leading-edge detection (SED) functions are disabled due to laser failure or disconnected connector (detail code: C05401).

■ Analysis Flow



12202, 12255, 13202

■ Error Occurrence Conditions

12202 Leading-edge detection error

During bootup and routine processing, only error for the leading-edge detection signal (SED1, SED2L) is detected.

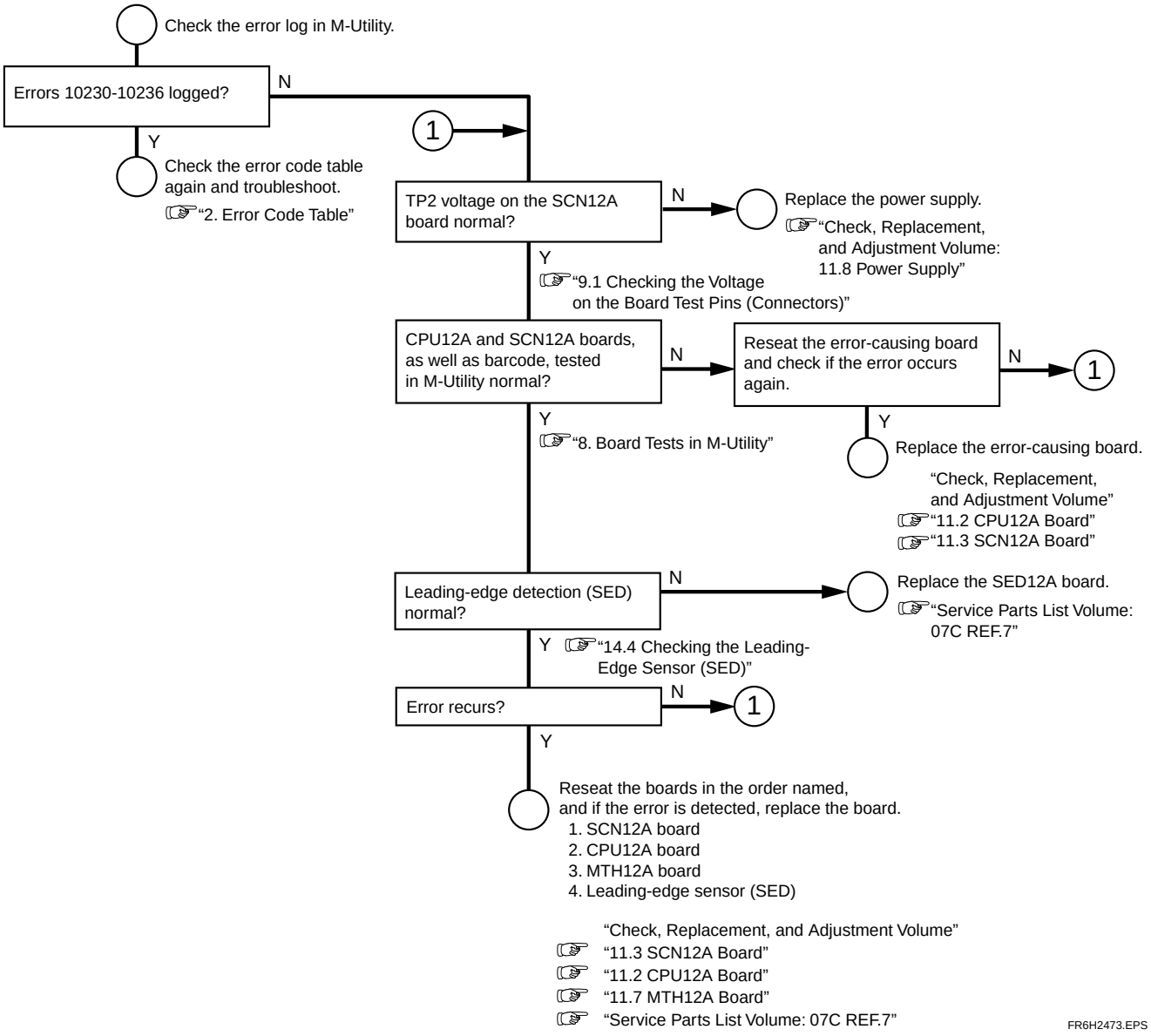
12255 Leading-edge detection error

During bootup, only error for the leading-edge detection signal (SED1, SED2L) is detected.

13202 Leading-edge detection error

During M-Utility operation, only error for the leading-edge detection signal (SED1, SED2L) is detected.

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Leading-edge detection (SED) normal?
N
Replace the SED12A board.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
Error recurs?
N
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. CPU12A board
3. MTH12A board
4. Leading-edge sensor (SED)
"Check, Replacement, and Adjustment Volume"
☞ "11.3 SCN12A Board"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
☞ "Service Parts List Volume: 07C REF.7"
FR6H2473.EPS

12211, 12217, 12251, 12252, 13211, 13217, 14211, 14251

■ Error Occurrence Conditions

12211 PMT analog power supply error,

During bootup and routine processing, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.5

12217 High-voltage power supply error

During bootup and routine processing, only error for the high-voltage power supply signal (HVOKH/L) is detected.

12251 Photomultiplier control board error (1)

During routine processing, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected (detail code: 008200).

Note that if the HV is OFF, the detail code is 008000.

12252 Photomultiplier control board error (2)

During routine processing, only error for the high-voltage power supply signal (HVOKH, HVOKL) is detected.

13211 PMT analog power supply error

During M-Utility operation, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.

13217 High-voltage power supply error

During M-Utility operation, only error for the high-voltage power supply signal (HVOKH, HVOKL) is detected.

14211 PMT analog power supply error During bootup

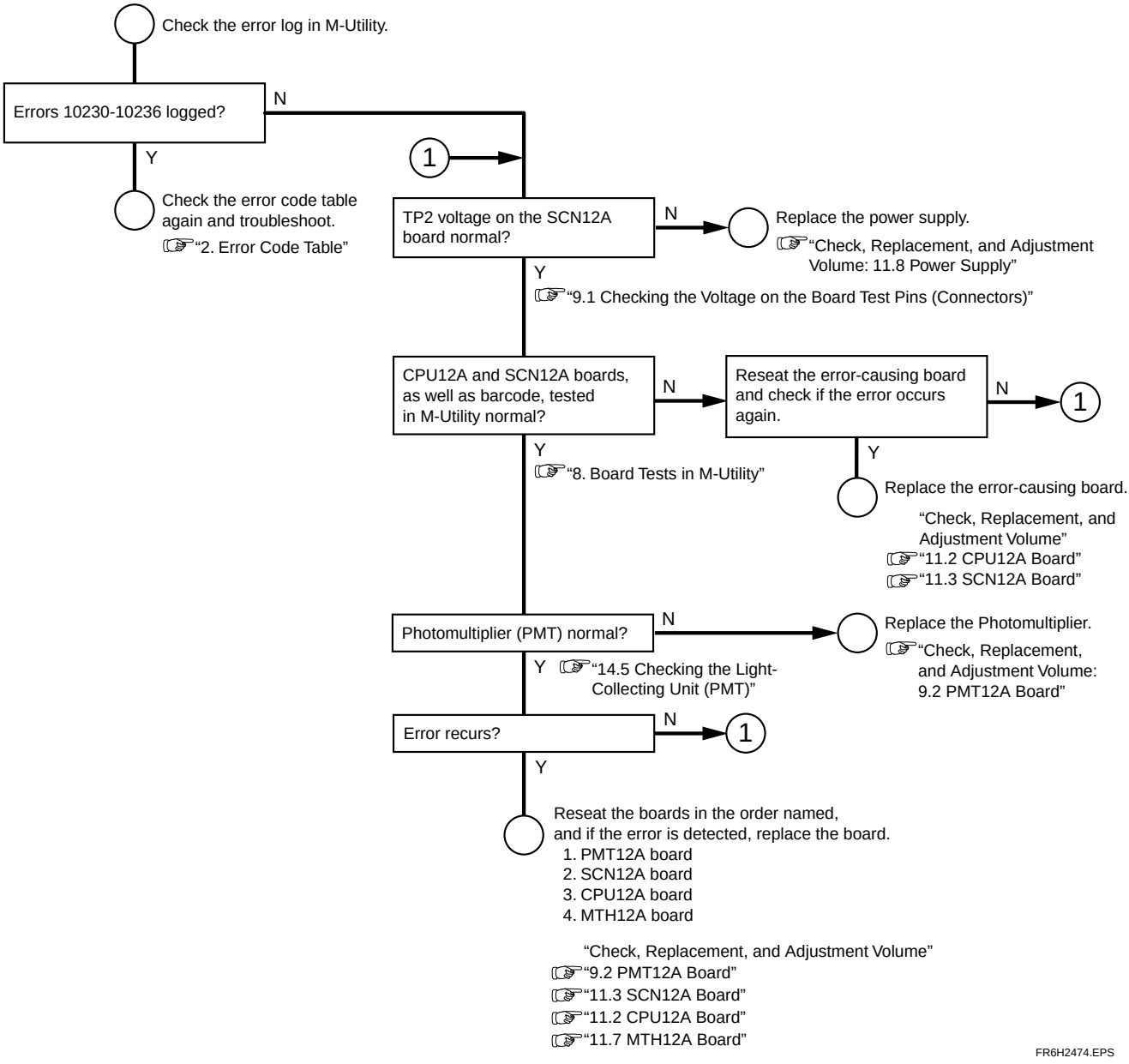
During bootup, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected.

14251 Photomultiplier control board error During bootup (1)

During routine processing, only error for the PMT analog power supply signal (+15VOKH, +15VOKL) is detected (detail code: 008200).

Note that if the HV is OFF, the detail code is 008000.

■ Analysis Flow



10261, 12213, 12262, 12263, 12264, 13210, 14261

■ Error Occurrence Conditions

10261 Polygon rotation error (1)

During routine processing, error for the polygon lock signal (PONL, POKL) is detected so that the polygonal mirror function is disabled. The start-point detection (SYN) and leading-edge detection (SED) functions are also disabled (detail code: D03403).

12213 Polygon lock error

During bootup and routine processing, only error for the polygon lock signal (POKL, PONL) is detected.

12262 Polygon rotation error (2)

- During routine processing, error for the signals (PONL, POKL, PINDXL) from the polygonal mirror (POL) and the start-point interval function on the SCN12A board is detected (detail code: 003400).
- During routine processing, error for the polygon lock signal (PONL, POKL) and error for the start-point interval function and polygon rotation detection function on the SCN12A board are detected (detail code: 003400).

12263 Polygon rotation error (3)

During routine processing, only error for the lock signal (POKL, PONL) from the polygonal mirror (POL) is detected (detail code: 002000).

If error for the SEDTM or FCLKTM signal on the SCN12A board is detected, the detail code is 002003.

12264 Polygonal rotation error (4)

During routine processing, error for the signals (PONL, POKL, PINDXL) from the polygonal mirror and the SEDTM signal on the SCN12A board is detected (detail code: 001002).

Alternatively, error for the index signal (PINDXL) from the polygonal mirror and the SEDTM and FCLKTM signals on the SCN12A board is detected (detail code: 0010030).

Alternatively, error for the signals (POKL, PINDXL) from the polygonal mirror and the SEDTM signal on the SCN12A board is detected (error code: 001002).

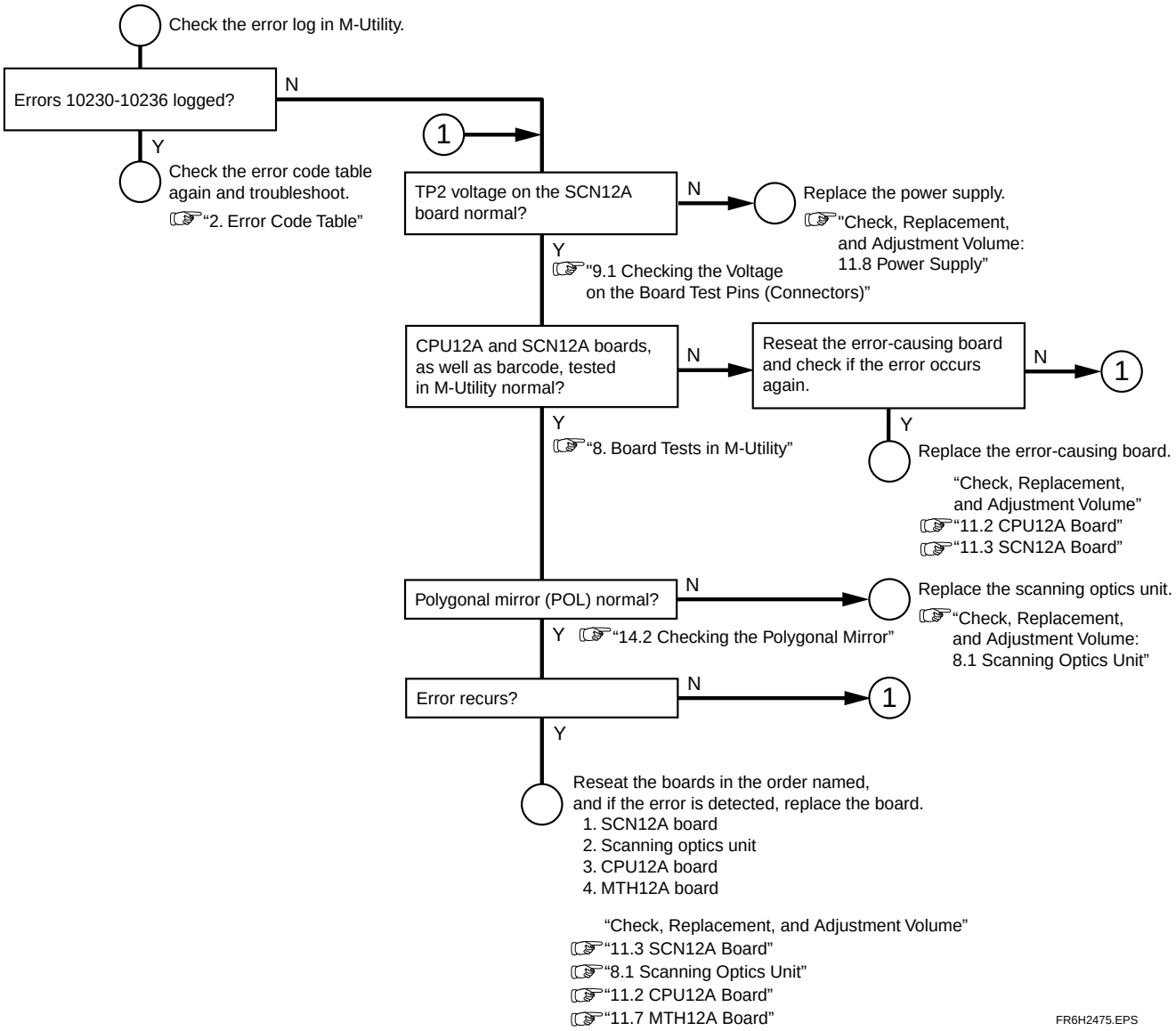
13210 Polygon lock timeout

During bootup and routine processing, the polygon OK signal is not detected within 6 seconds after turn-ON of the polygonal mirror.

14261 Polygon rotation error (1)

During bootup, error for the polygon lock signal (PONL, POKL) is detected so that the polygonal mirror function is disabled. The start-point detection (SYN) and leading-edge detection (SED) are also disabled (detail code: D03403).

■ Analysis Flow



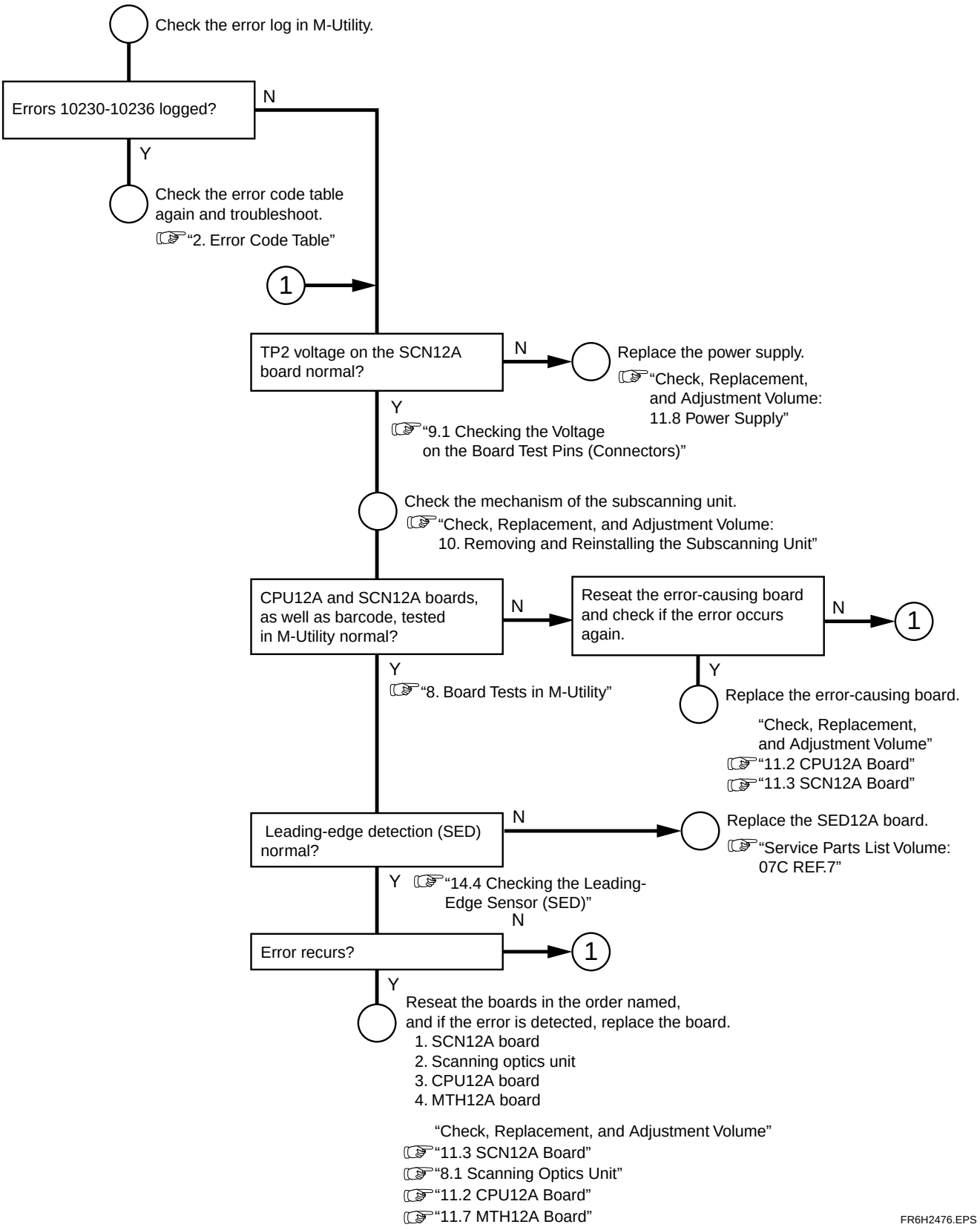
12256

■ Error Occurrence Conditions

12256 Leading-edge detection timing error

During routine processing, IP conveyance overrun occurs due to mechanical error or SCN12A board control error, and only error for the SEDTM and FCLKTM signals on the SCN12A board is detected.

■ Analysis Flow


Check the error log in M-Utility.
Errors 10230-10236 logged?
N
Y
Check the error code table again and troubleshoot.
☞"2. Error Code Table"
1
TP2 voltage on the SCN12A board normal?
N
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Check the mechanism of the subscanning unit.
☞"Check, Replacement, and Adjustment Volume: 10. Removing and Reinstalling the Subscanning Unit"
CPU12A and SCN12A boards, as well as barcode, tested in M-Utility normal?
N
Reseat the error-causing board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SCN12A Board"
Leading-edge detection (SED) normal?
N
Replace the SED12A board.
☞"Service Parts List Volume: 07C REF.7"
Y ☞"14.4 Checking the Leading-Edge Sensor (SED)"
N
Error recurs?
1
Y
Reseat the boards in the order named, and if the error is detected, replace the board.
1. SCN12A board
2. Scanning optics unit
3. CPU12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"8.1 Scanning Optics Unit"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2476.EPS

10271, 14271

■ Error Occurrence Conditions

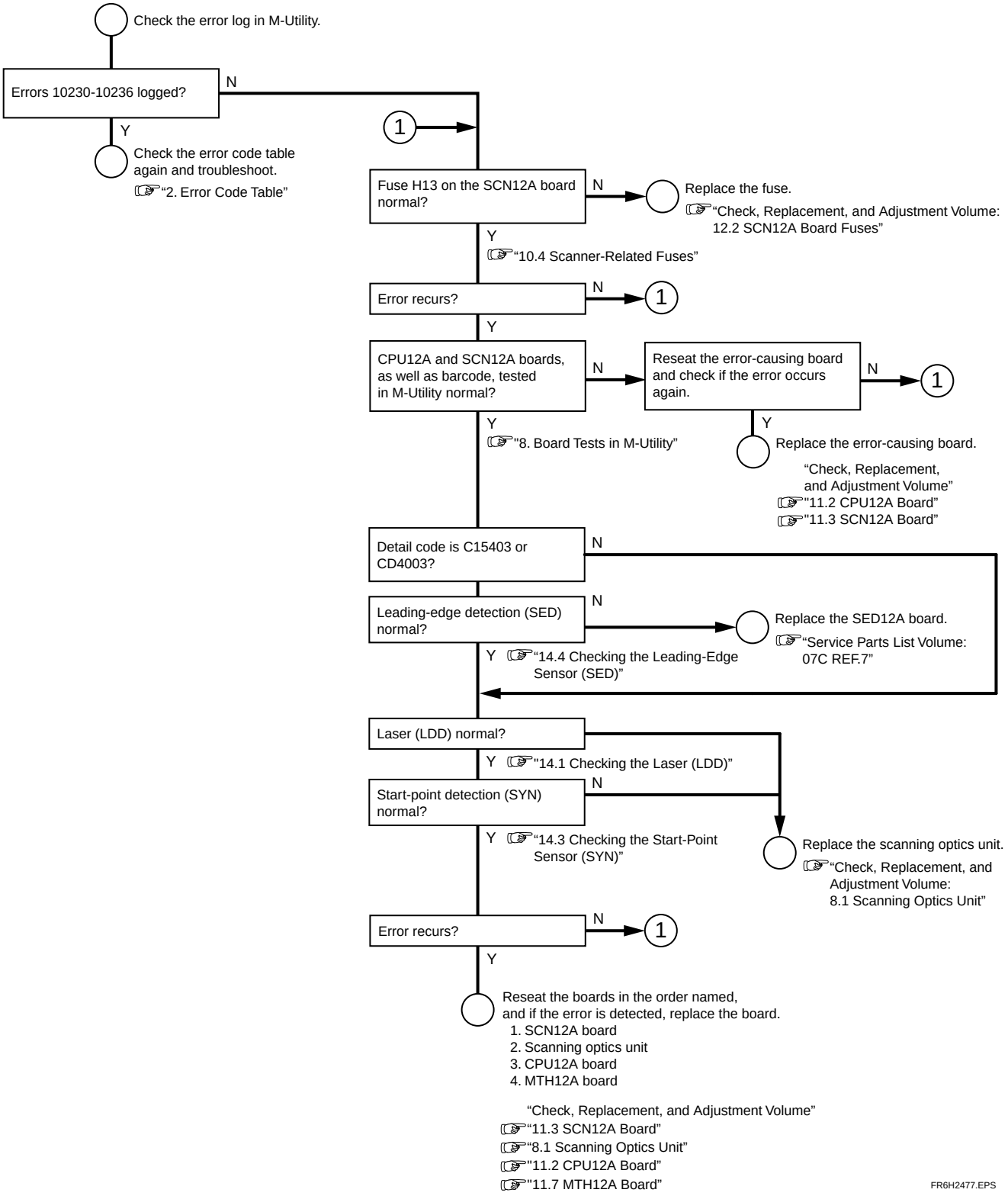
10271 Laser unlit error

During routine processing, the laser (LDD) and start-point detection (SYN) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: 815403).

14271 Laser unlit error during bootup

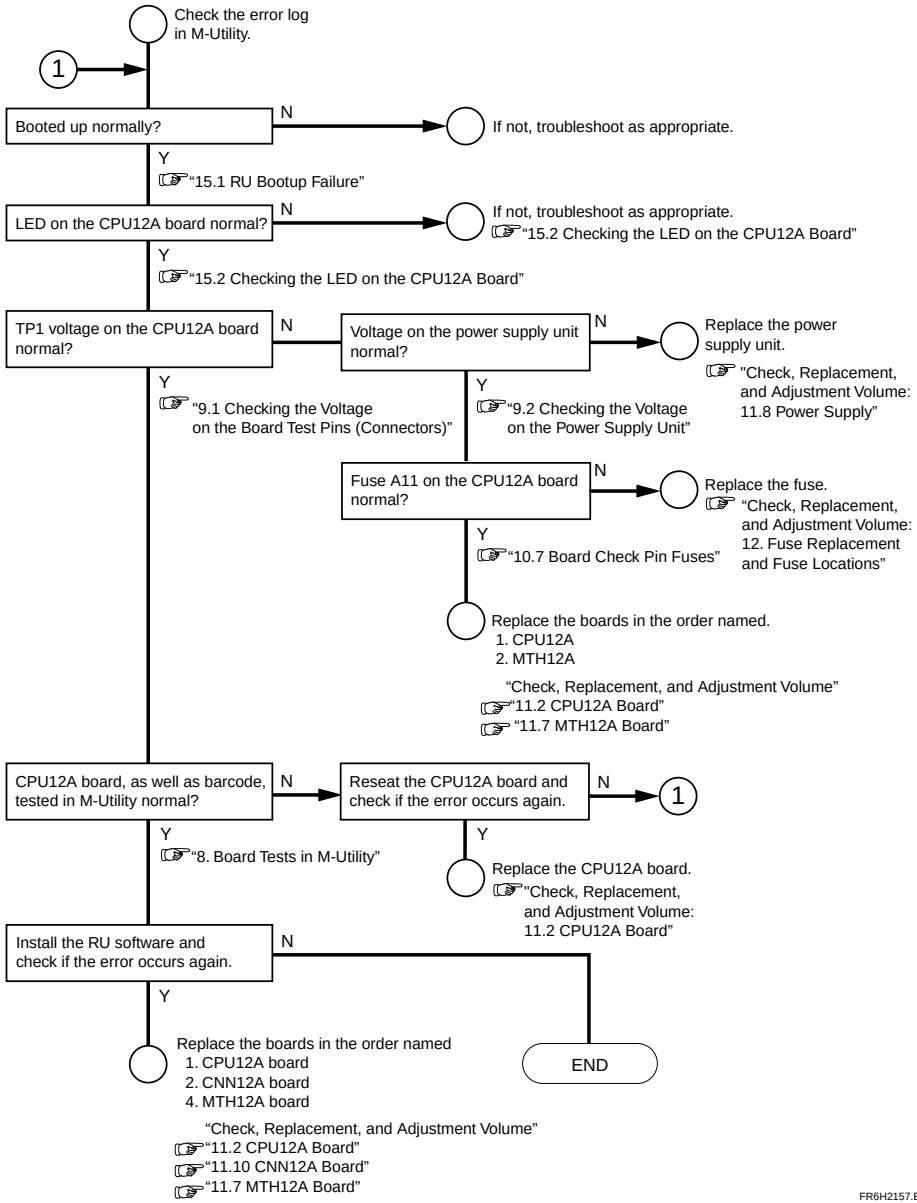
- During bootup, the laser (LDD) and start-point detection (SYN) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: 815403).
- During bootup, the laser (LDD), start-point detection (SYN), and leading-edge detection (SED) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: C15403).
- During bootup, error for the laser drive current value (LDIF) occurs and the start-point detection (SYN) and leading-edge detection (SED) functions are disabled due to blow of the fuse (H13 on the SCN board) or laser failure (detail code: C04003).

■ Analysis Flow



6. Error Code Analysis Flow (Electrical)

6.1 Error Code Analysis Flow between the CPU12A Board and CL


Check the error log in M-Utility.
1
Booted up normally?
N
If not, troubleshoot as appropriate.
Y
☞"15.1 RU Bootup Failure"
LED on the CPU12A board normal?
N
If not, troubleshoot as appropriate.
☞"15.2 Checking the LED on the CPU12A Board"
Y
☞"15.2 Checking the LED on the CPU12A Board"
TP1 voltage on the CPU12A board normal?
N
Voltage on the power supply unit normal?
N
Replace the power supply unit.
☞ "Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Y
☞"9.2 Checking the Voltage on the Power Supply Unit"
Fuse A11 on the CPU12A board normal?
N
Replace the fuse.
☞ "Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.7 Board Check Pin Fuses"
Replace the boards in the order named.
1. CPU12A
2. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
CPU12A board, as well as barcode, tested in M-Utility normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
Install the RU software and check if the error occurs again.
N
Y
Replace the boards in the order named
1. CPU12A board
2. CNN12A board
4. MTH12A board
END
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.10 CNN12A Board"
☞"11.7 MTH12A Board"

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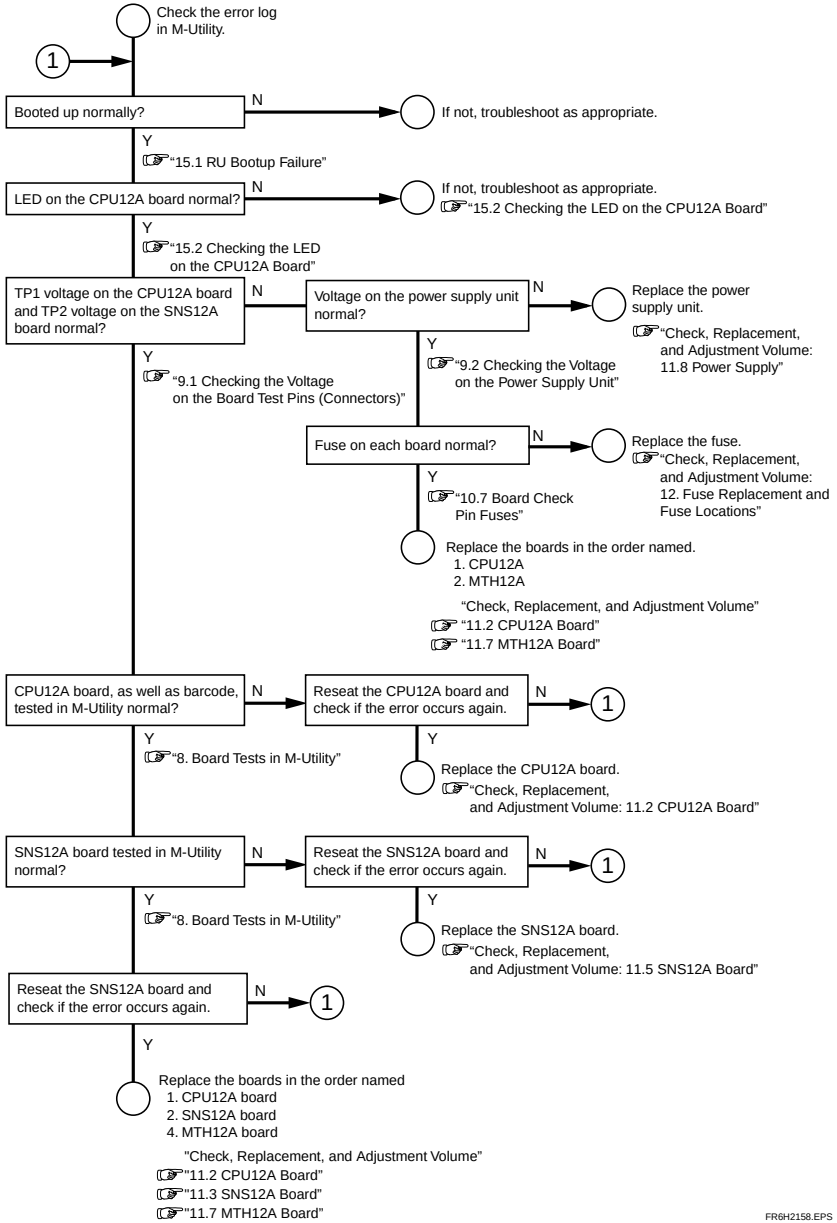
6.2 Error Code Analysis Flow between the SNS12A Board and CPU12A Board


Check the error log in M-Utility.
1
Booted up normally?
N
If not, troubleshoot as appropriate.
Y
☞"15.1 RU Bootup Failure"
LED on the CPU12A board normal?
N
If not, troubleshoot as appropriate.
☞"15.2 Checking the LED on the CPU12A Board"
Y
☞"15.2 Checking the LED on the CPU12A Board"
TP1 voltage on the CPU12A board and TP2 voltage on the SNS12A board normal?
N
Voltage on the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.2 Checking the Voltage on the Power Supply Unit"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse on each board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.7 Board Check Pin Fuses"
Replace the boards in the order named.
1. CPU12A
2. MTH12A
"Check, Replacement, and Adjustment Volume"
☞ "11.2 CPU12A Board"
☞ "11.7 MTH12A Board"
CPU12A board, as well as barcode, tested in M-Utility normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
SNS12A board tested in M-Utility normal?
N
Reseat the SNS12A board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the SNS12A board.
☞"Check, Replacement, and Adjustment Volume: 11.5 SNS12A Board"
Reseat the SNS12A board and check if the error occurs again.
N
1
Y
Replace the boards in the order named
1. CPU12A board
2. SNS12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SNS12A Board"
☞"11.7 MTH12A Board"

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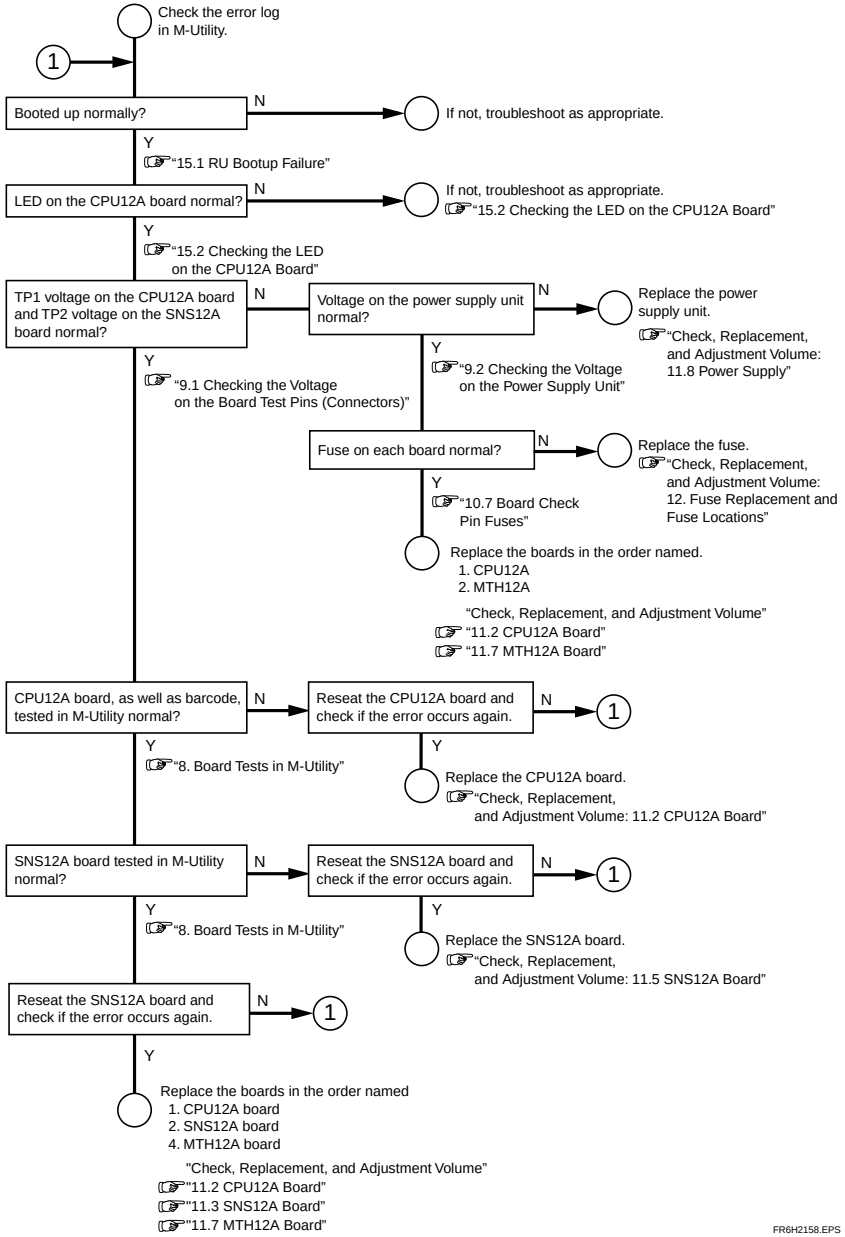
6.3 Error Code Analysis Flow between the SCN12A Board and CPU12A Board


Check the error log in M-Utility.
1
Booted up normally?
N
If not, troubleshoot as appropriate.
Y
☞"15.1 RU Bootup Failure"
LED on the CPU12A board normal?
N
If not, troubleshoot as appropriate.
☞"15.2 Checking the LED on the CPU12A Board"
Y
☞"15.2 Checking the LED on the CPU12A Board"
TP1 voltage on the CPU12A board and TP2 voltage on the SNS12A board normal?
N
Voltage on the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞"9.2 Checking the Voltage on the Power Supply Unit"
Y
☞"9.1 Checking the Voltage on the Board Test Pins (Connectors)"
Fuse on each board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.7 Board Check Pin Fuses"
Replace the boards in the order named.
1. CPU12A
2. MTH12A
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
CPU12A board, as well as barcode, tested in M-Utility normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
SNS12A board tested in M-Utility normal?
N
Reseat the SNS12A board and check if the error occurs again.
N
1
Y
☞"8. Board Tests in M-Utility"
Y
Replace the SNS12A board.
☞"Check, Replacement, and Adjustment Volume: 11.5 SNS12A Board"
Reseat the SNS12A board and check if the error occurs again.
N
1
Y
Replace the boards in the order named
1. CPU12A board
2. SNS12A board
4. MTH12A board
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.3 SNS12A Board"
☞"11.7 MTH12A Board"
FR6H2158.EPS

6.4 Error Code Analysis Flow between the Erasure Unit and INV12B Board

11731, 11751, 11781

■ Error Occurrence Conditions

11731 Thermistor failure detection (during erasure initialization)

During bootup, it is detected that temperature control of the erasure unit does not function due to temperature thermistor (THB1) error.

11751 Thermistor failure detection (during IP processing)

During routine processing, error for the temperature thermistor (THB1) is detected.

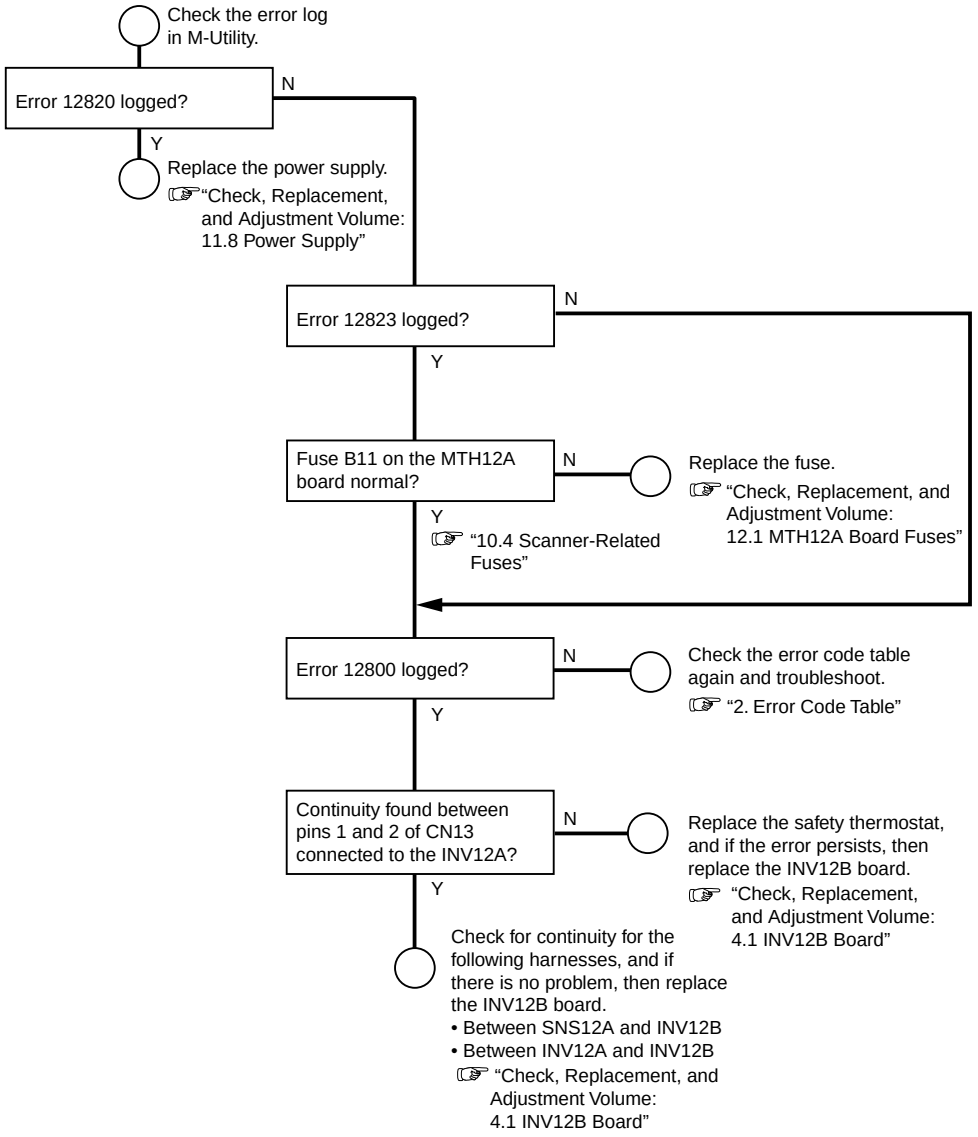
11781 Thermistor failure detection (during idling)

During idling after machine bootup, error for the temperature thermistor (THB1) is detected.

■ Analysis Flow

After checking the LED display on the INV12B board, analysis should be performed by using the analysis flow that corresponds to the resulting LED display.

● INV12B LED display - ON: LED14, LED15
OFF: LED16, LED17, LED18


Check the error log in M-Utility.
Error 12820 logged?
N
Y
Replace the power supply.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Error 12823 logged?
N
Y
Fuse B11 on the MTH12A board normal?
N
Replace the fuse.
☞ "Check, Replacement, and Adjustment Volume: 12.1 MTH12A Board Fuses"
Y
☞ "10.4 Scanner-Related Fuses"
Error 12800 logged?
N
Check the error code table again and troubleshoot.
☞ "2. Error Code Table"
Y
Continuity found between pins 1 and 2 of CN13 connected to the INV12A?
N
Replace the safety thermostat, and if the error persists, then replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
Y
Check for continuity for the following harnesses, and if there is no problem, then replace the INV12B board.
• Between SNS12A and INV12B
• Between INV12A and INV12B
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"

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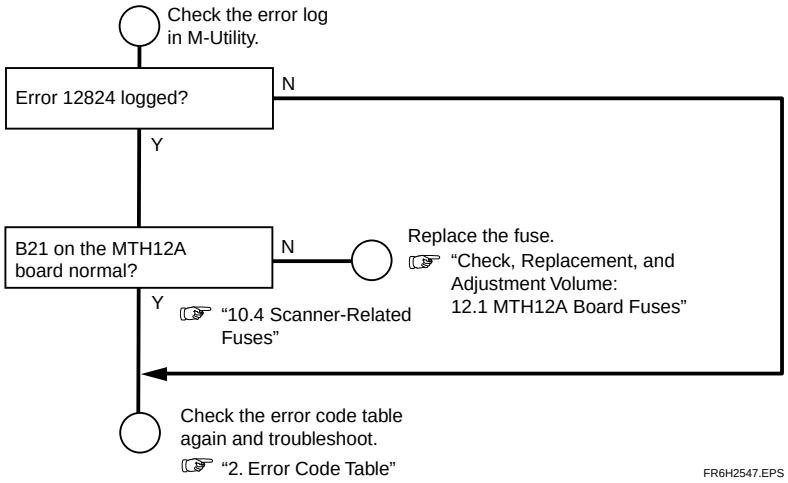
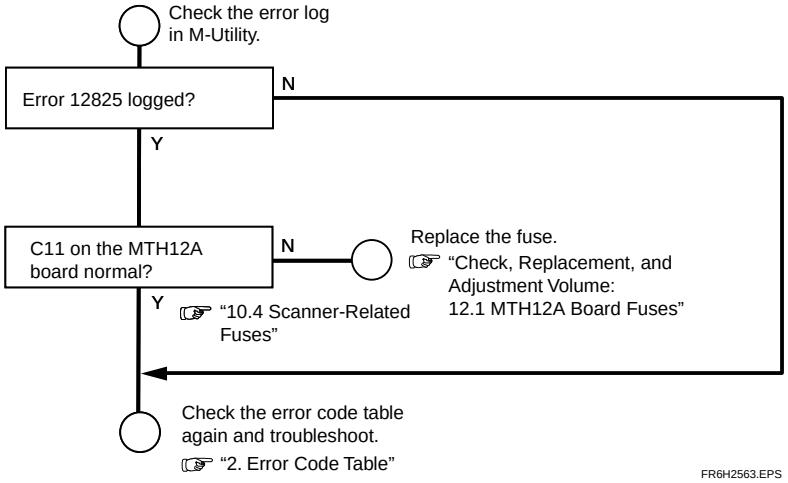
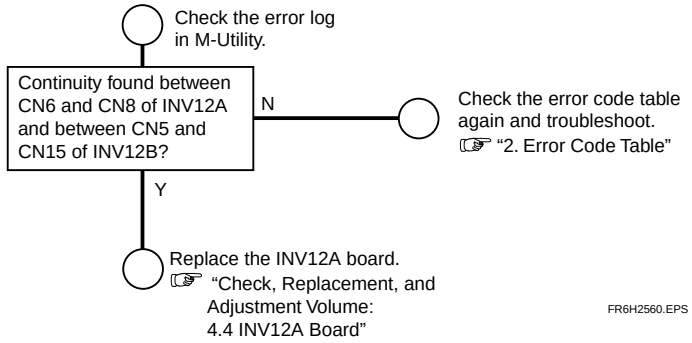
● INV12B LED display - ON: LED14, LED15, LED16
OFF: LED17, LED18



● INV12B LED display - ON: LED14, LED15, LED16, LED17
OFF: LED18



● INV12B LED display - ON: LED14, LED15, LED17, LED18
OFF: LED16


Check the error log in M-Utility.
Continuity found between CN6 and CN8 of INV12A and between CN5 and CN15 of INV12B?
N
Y
Check the error code table again and troubleshoot.
☞ "2. Error Code Table"
Replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"
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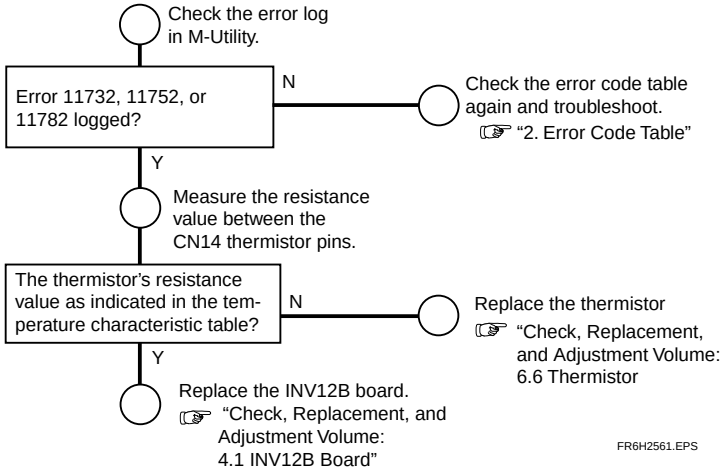
● INV12B LED display - ON: LED14, LED16, LED17, LED18
OFF: LED15


Check the error log in M-Utility.
Error 11732, 11752, or 11782 logged?
N
Y
Check the error code table again and troubleshoot.
☞ "2. Error Code Table"
Measure the resistance value between the CN14 thermistor pins.
The thermistor's resistance value as indicated in the temperature characteristic table?
N
Y
Replace the thermistor
☞ "Check, Replacement, and Adjustment Volume: 6.6 Thermistor
Replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
FR6H2561.EPS

11732, 11752, 11782

■ Error Occurrence Conditions

11732 Thermistor status error detection (during erasure initialization)

During bootup, the temperature thermistor (THB1) detects an abnormal range. Temperature control of the erasure unit does not function.

11752 Erasure unit temperature status inconsistency (during IP processing)

During routine processing, error for the temperature status (LED: D15, D11, D10, D13) in the erasure unit is detected. Temperature control of the erasure unit is disabled.

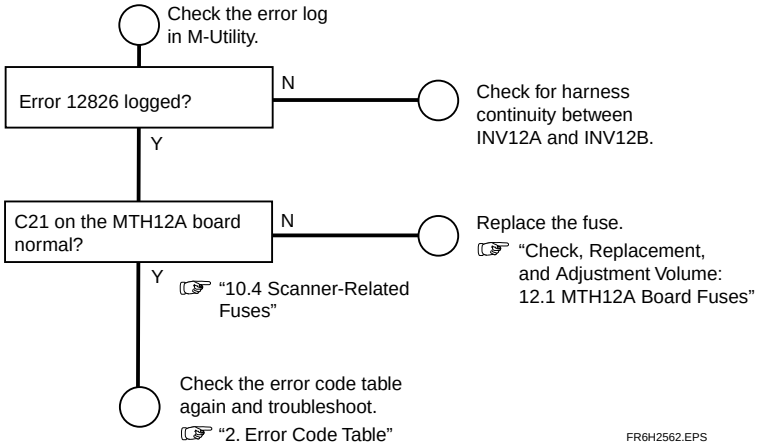
11782 Erasure unit temperature status inconsistency (during idling)

During bootup, error for the temperature status (LED: D15, D11, D10, D13) in the erasure unit is detected. Temperature control of the erasure unit is disabled.

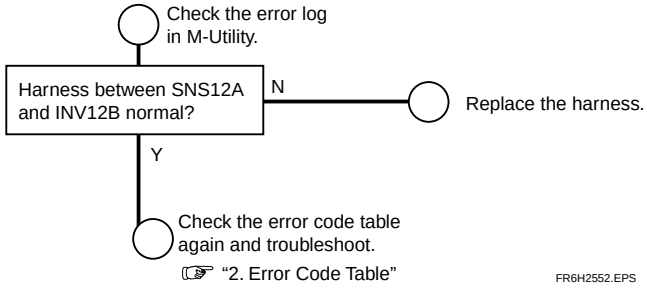
■ Analysis Flow

After checking the LED display on the INV12B board, analysis should be performed by using the analysis flow that corresponds to the resulting LED display.

● INV12B LED display - OFF: LED14, LED15, LED16, LED17, LED18


Check the error log in M-Utility.
Error 12826 logged?
N
Check for harness continuity between INV12A and INV12B.
Y
C21 on the MTH12A board normal?
N
Replace the fuse.
☞ "Check, Replacement, and Adjustment Volume: 12.1 MTH12A Board Fuses"
Y
☞ "10.4 Scanner-Related Fuses"
Check the error code table again and troubleshoot.
☞ "2. Error Code Table"
FR6H2562.EPS

● INV12B LED display - ON: LED14, LED15, LED16, LED17, LED18



● INV12B LED display - ON: LED16, LED17, LED18
OFF: LED14, LED15

Replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"

● INV12B LED display - ON: LED16, LED18
OFF: LED14, LED15, LED17

Replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"

● INV12B LED display - ON: LED16, LED17
OFF: LED14, LED15, LED18

Replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"

11737, 11757, 11767

■ Error Occurrence Conditions

11737 Lamp unlit detection (during erasure initialization)

During bootup, the erasure lamps are tuned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.

11757 Lamp unlit detection (during erasure idle temperature control)

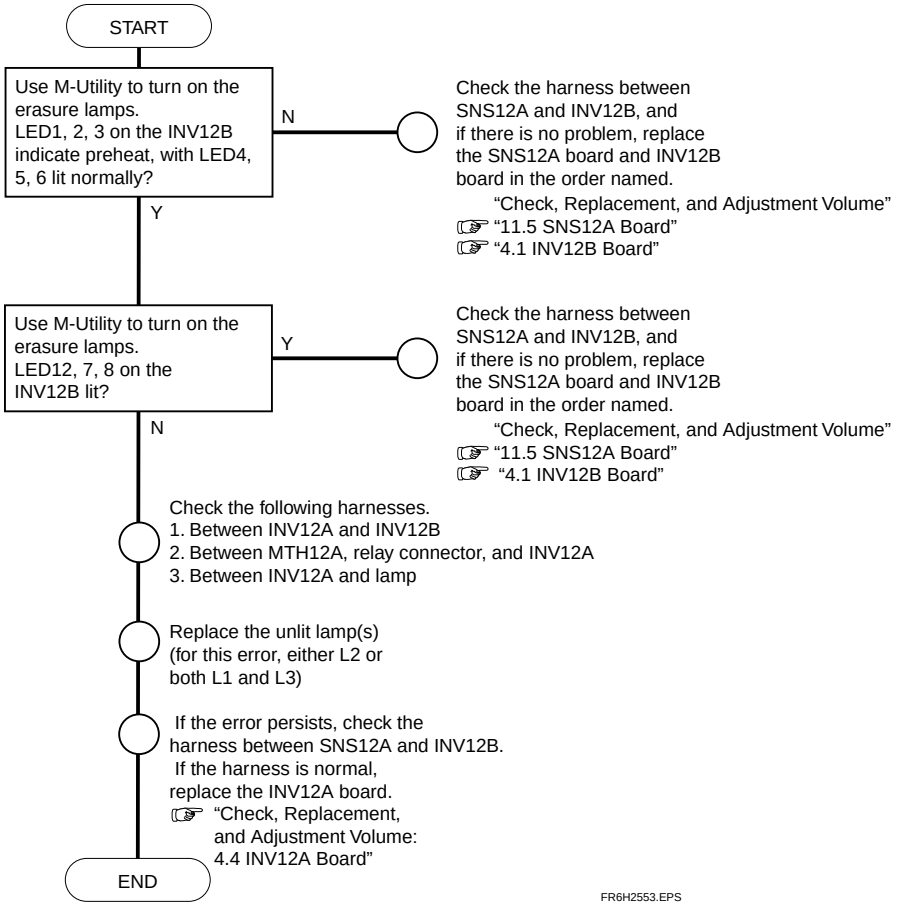
During machine idle state, in order to perform erasure temperature control, the erasure lamps are turned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.

11767 Lamp unlit detection (during IP erasure lighting)

During IP erasure for routine processing, the erasure lamps are turned on to check their lighting, but a single center lamp (socket L2) of the three erasure lamps is unlit. Or, two or more erasure lamps are unlit.

■ Analysis Flow

● INV12B LED display - ON: LED14, LED15, LED16, LED17, LED18


START
Use M-Utility to turn on the erasure lamps. LED1, 2, 3 on the INV12B indicate preheat, with LED4, 5, 6 lit normally?
N
Check the harness between SNS12A and INV12B, and if there is no problem, replace the SNS12A board and INV12B board in the order named.
"Check, Replacement, and Adjustment Volume"
☞ "11.5 SNS12A Board"
☞ "4.1 INV12B Board"
Y
Use M-Utility to turn on the erasure lamps. LED12, 7, 8 on the INV12B lit?
Y
Check the harness between SNS12A and INV12B, and if there is no problem, replace the SNS12A board and INV12B board in the order named.
"Check, Replacement, and Adjustment Volume"
☞ "11.5 SNS12A Board"
☞ "4.1 INV12B Board"
N
Check the following harnesses.
1. Between INV12A and INV12B
2. Between MTH12A, relay connector, and INV12A
3. Between INV12A and lamp
Replace the unlit lamp(s) (for this error, either L2 or both L1 and L3)
If the error persists, check the harness between SNS12A and INV12B. If the harness is normal, replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"
END
FR6H2553.EPS

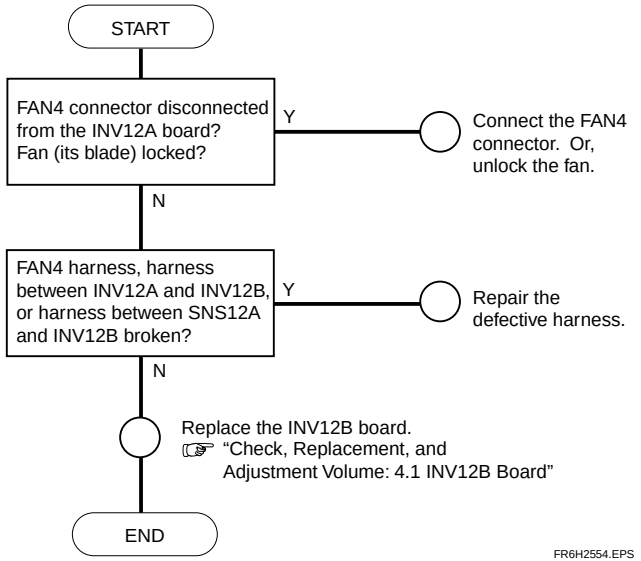
12730

■ Error Occurrence Conditions

12730 Inverter cooling fa operation error (during erasure initialization)

During bootup, error for the FAN4 (inverter board cooling fan) is detected, but it is activated as usual

■ Analysis Flow


START
FAN4 connector disconnected from the INV12A board? Fan (its blade) locked?
Y
Connect the FAN4 connector. Or, unlock the fan.
N
FAN4 harness, harness between INV12A and INV12B, or harness between SNS12A and INV12B broken?
Y
Repair the defective harness.
N
Replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
END
FR6H2554.EPS

12733, 12743, 12753

■ Error Occurrence Conditions

12733 High-temperature error detection (during erasure initialization)

During bootup, the temperature thermistor (THB1) detects high-temperature error.

12743 Erasure unit high-temperature error cancel

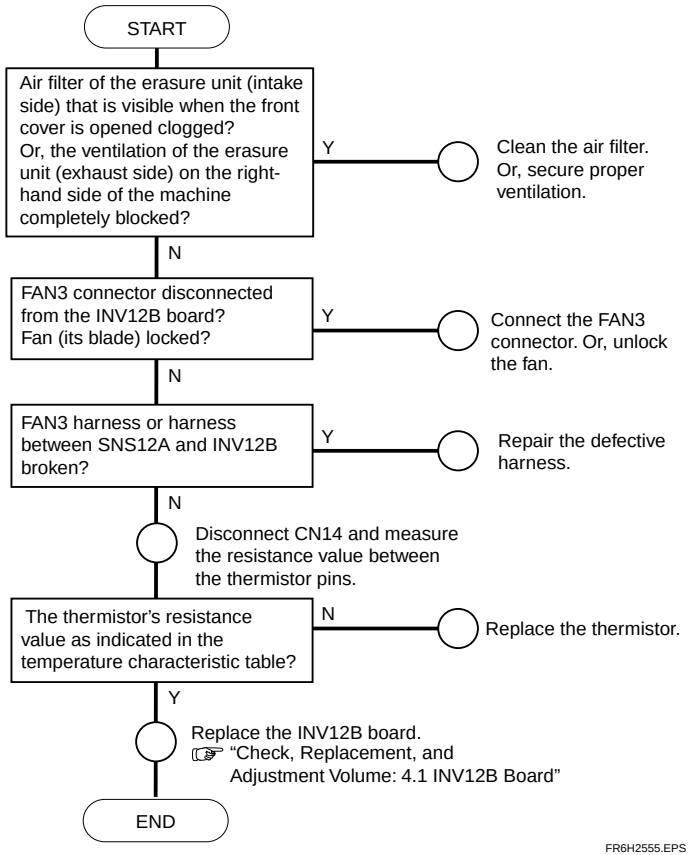
During bootup and routine processing, 12733 or 12753 occurs and the temperature of the erasure unit lamp reaches an abnormal level, so that the no-erasure mode is temporarily entered.

Subsequently, because the erasure lamp temperature drops below the specified level (erasure-enabled temperature), it returns to the normal mode.

12753 Erasure unit high-temperature error

During routine processing and idling, the temperature thermistor (THB1) detects high-temperature error.

■ Analysis Flow


START
Air filter of the erasure unit (intake side) that is visible when the front cover is opened clogged? Or, the ventilation of the erasure unit (exhaust side) on the right-hand side of the machine completely blocked?
Y
Clean the air filter. Or, secure proper ventilation.
N
FAN3 connector disconnected from the INV12B board? Fan (its blade) locked?
Y
Connect the FAN3 connector. Or, unlock the fan.
N
FAN3 harness or harness between SNS12A and INV12B broken?
Y
Repair the defective harness.
N
Disconnect CN14 and measure the resistance value between the thermistor pins.
The thermistor's resistance value as indicated in the temperature characteristic table?
N
Replace the thermistor.
Y
Replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
END
FR6H2555.EPS

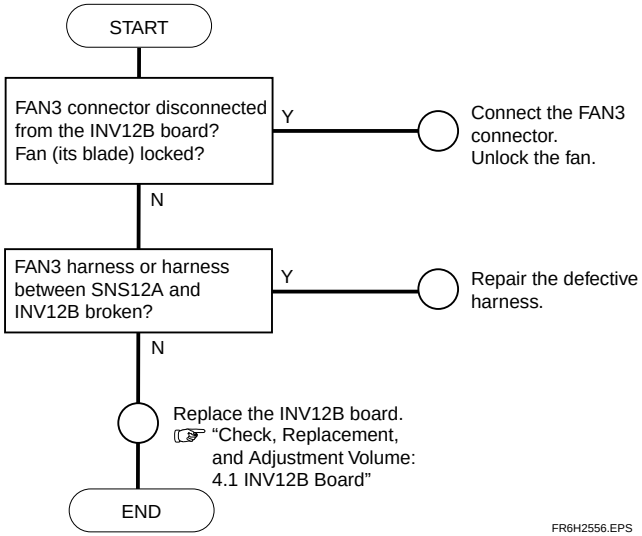
12735

■ Error Occurrence Conditions

12735 Erasure cooling fan diagnostics error (during erasure initialization)

During bootup, error for the FAN3 (erasure unit lamp house cooling fan) is detected, but only a warning is recorded, and fan control continues as usual.

■ Analysis Flow


START
FAN3 connector disconnected from the INV12B board? Fan (its blade) locked?
Y
Connect the FAN3 connector. Unlock the fan.
N
FAN3 harness or harness between SNS12A and INV12B broken?
Y
Repair the defective harness.
N
Replace the INV12B board. ☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
END
FR6H2556.EPS

12736, 12756, 12766, 18741

■ Error Occurrence Conditions

12736 Single lamp unlit detection (during erasure initialization)

During bootup, because one of the three lamps is unlit, the machine is booted up in the mode where the erasure time is extended.

12756 Single lamp unlit detection(during erasure idle temperature control)

During idling, when the erasure lamps are turned on for erasure temperature control, a single lamp that is normally lit does not turn on, so that it enters the erasure time extension mode.

12766 Single lamp unlit detection (during IP erasure lighting)

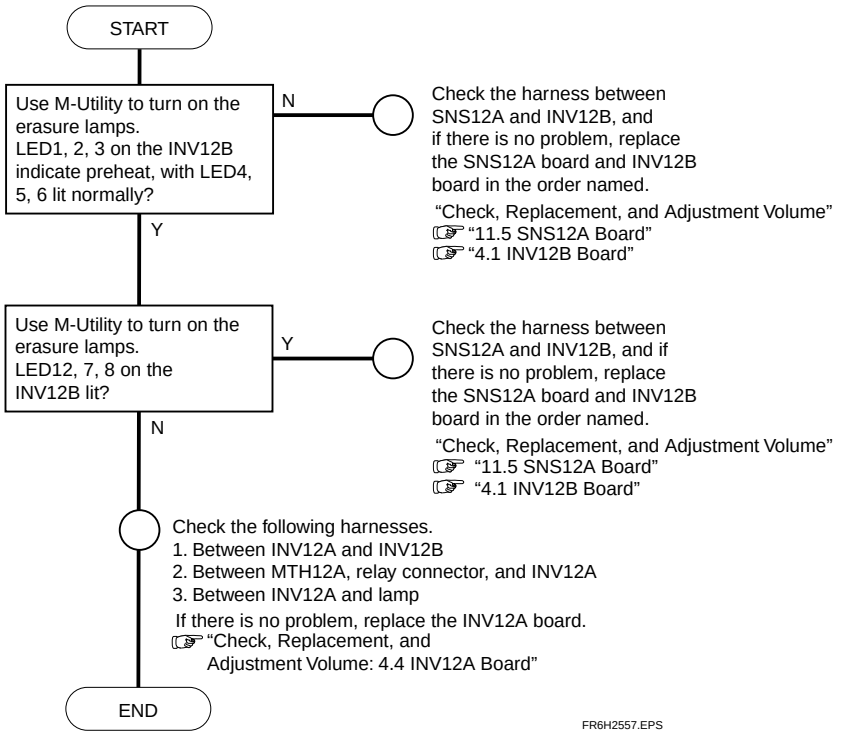
During bootup and routine processing, when the erasure lamps are turned on during IP erasure, a single lamp is unlit, so that it enters the erasure time extension mode.

18741 Incomplete erasure

Because 12736, 12756, or 12766 occurs so that a single lamp is unlit, the mode shifts to the erasure time extension mode where the erasure time is extended twice. The IP that is read while in the erasure time extension mode is erased with the extended erasure time.

■ Analysis Flow

● INV12B LED display - ON: LED14, LED15, LED16, LED17, LED18


START
Use M-Utility to turn on the erasure lamps. LED1, 2, 3 on the INV12B indicate preheat, with LED4, 5, 6 lit normally?
N
Check the harness between SNS12A and INV12B, and if there is no problem, replace the SNS12A board and INV12B board in the order named.
"Check, Replacement, and Adjustment Volume"
☞ "11.5 SNS12A Board"
☞ "4.1 INV12B Board"
Y
Use M-Utility to turn on the erasure lamps. LED12, 7, 8 on the INV12B lit?
Y
Check the harness between SNS12A and INV12B, and if there is no problem, replace the SNS12A board and INV12B board in the order named.
"Check, Replacement, and Adjustment Volume"
☞ "11.5 SNS12A Board"
☞ "4.1 INV12B Board"
N
Check the following harnesses.
1. Between INV12A and INV12B
2. Between MTH12A, relay connector, and INV12A
3. Between INV12A and lamp
If there is no problem, replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"
END
FR6H2557.EPS

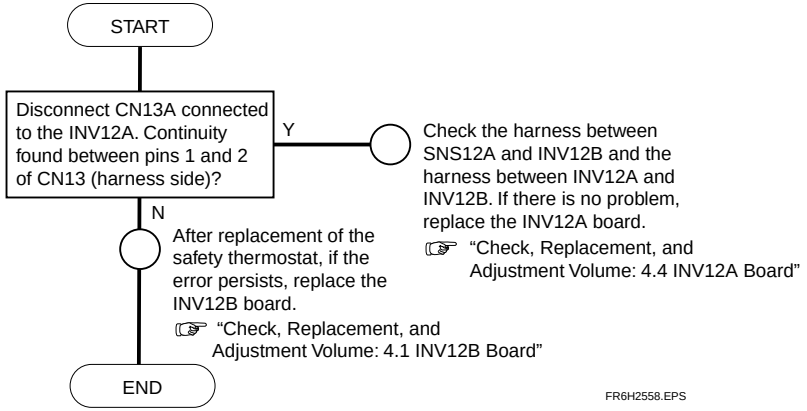
12800

■ Error Occurrence Conditions

12800 Erasure unit safety thermostat TSWB1 operation

During bootup and routine processing, because the erasure unit lamp housing reaches an abnormally high temperature, the safety thermostat TSWB1 is activated.

■ Analysis Flow


START
Disconnect CN13A connected to the INV12A. Continuity found between pins 1 and 2 of CN13 (harness side)?
Y
Check the harness between SNS12A and INV12B and the harness between INV12A and INV12B. If there is no problem, replace the INV12A board.
☞ "Check, Replacement, and Adjustment Volume: 4.4 INV12A Board"
N
After replacement of the safety thermostat, if the error persists, replace the INV12B board.
☞ "Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
END
FR6H2558.EPS

7. Error Code Analysis Flow (Software)

7.1 Initializing the Configuration Setup (A04 or Later)

This section describes the procedures for temporarily initializing the configuration setup related to the RU network.

Note, however, that this initialization setup will be canceled by resetting the RU.

CAUTIONS

Before initialization, make sure that any machine having the RU host name of "ru0" does not exist over the same network. Also make sure that any machine that uses the default setting for its IP address does not exist.
If it is used, power OFF the machine that has the RU host name of "ru0" or the machine that uses the default setting for its IP address.
If the configuration setup is initialized under power-ON condition, the machine that has the RU host name of "ru0" or the machine that uses the default setting for its IP address will undergo automatic installation and thus will be initialized.

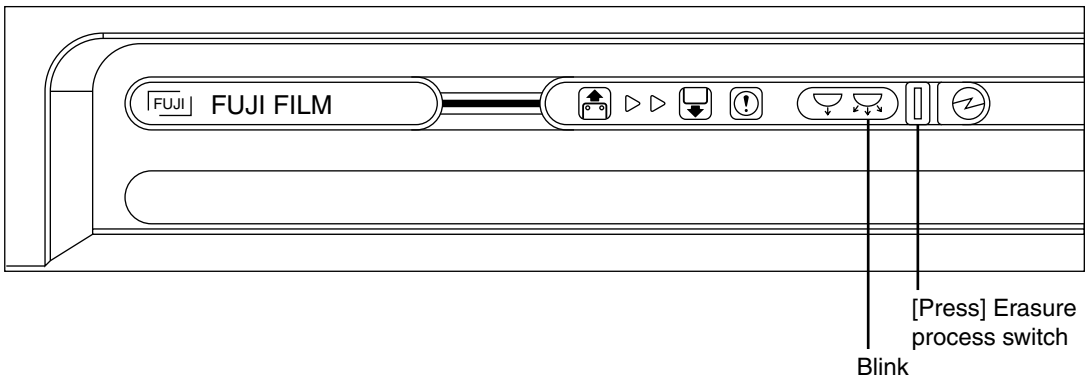
◇ ***REFERENCE*** ◇

The default values of the IP address are as follows.
- *RU IP ADDR: 172.16.1.10*
- *CL IP ADDR: 172.16.1.20*
- *FTP-SERV.: 172.16.1.20*
- *INFO-HOST: 172.16.1.20*

■ Initializing the Network-Related Configuration Setup

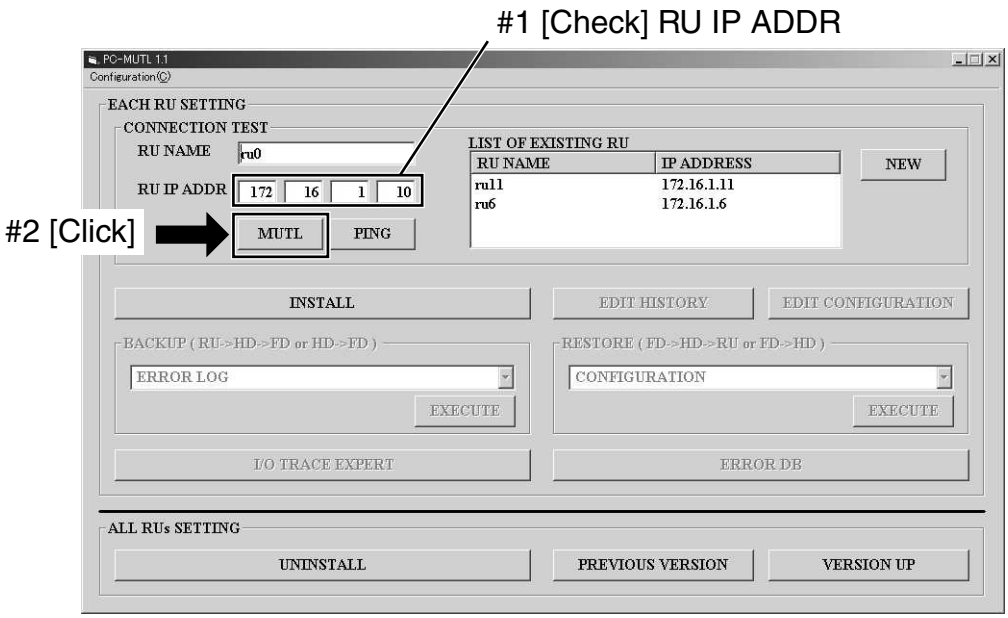
(1) Make sure that any machine that uses “ru0” as its RU host name or uses the default setting for its IP address does not exist over the same network.

(2) Turn OFF and then back ON the power switch of the RU, and, at the same time, hold down the erasure process switch until the erasure process indicator blinks (once).



FR6H2542.EPS

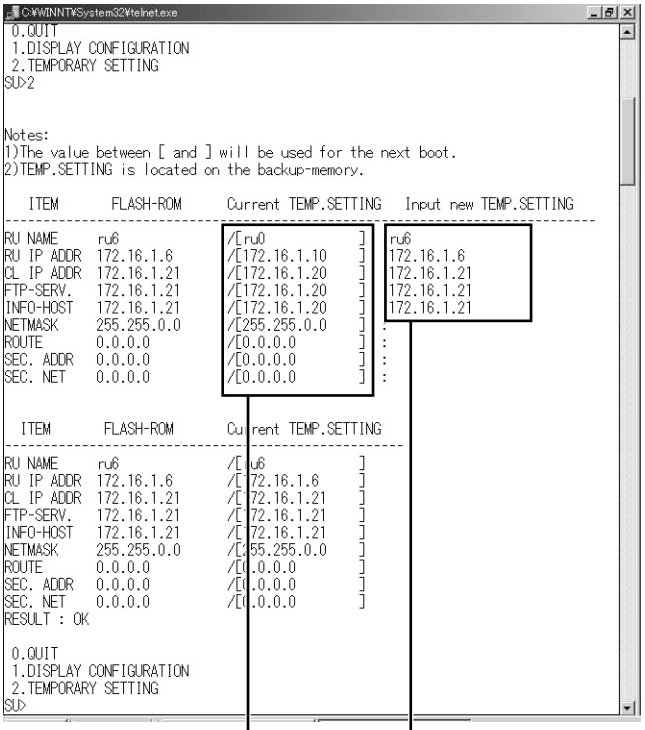
(3) Make sure that the IP address of the RU is at its default, and then start the M-Utility.
If it is not at its default, enter the default value, and then start the M-Utility.



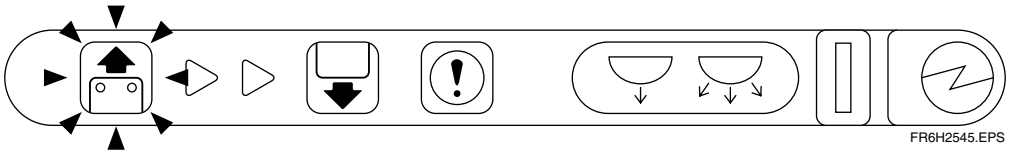
FR6H2543.EPS

(4) Using TEMPORARY SETTING of the M-Utility, verify that initialization has been done.

(5) With TEMPORARY SETTING of the M-Utility, enter the temporary setting values employed by the user.


C:¥WINNT¥System32¥telnet.exe
0.QUIT
1.DISPLAY CONFIGURATION
2.TEMPORARY SETTING
SU>2
Notes:
1)The value between [and] will be used for the next boot.
2)TEMP.SETTING is located on the backup-memory.
ITEM FLASH-ROM Current TEMP.SETTING Input new TEMP.SETTING
RU NAME ru6 /[ru0] ru6
RU IP ADDR 172.16.1.6 /[172.16.1.10] 172.16.1.6
CL IP ADDR 172.16.1.21 /[172.16.1.20] 172.16.1.21
FTP-SERV. 172.16.1.21 /[172.16.1.20] 172.16.1.21
INFO-HOST 172.16.1.21 /[172.16.1.20] 172.16.1.21
NETMASK 255.255.0.0 /[255.255.0.0]
ROUTE 0.0.0.0 /[0.0.0.0]
SEC. ADDR 0.0.0.0 /[0.0.0.0]
SEC. NET 0.0.0.0 /[0.0.0.0]
ITEM FLASH-ROM Current TEMP.SETTING
RU NAME ru6 /[ru6]
RU IP ADDR 172.16.1.6 /[172.16.1.6]
CL IP ADDR 172.16.1.21 /[172.16.1.21]
FTP-SERV. 172.16.1.21 /[172.16.1.21]
INFO-HOST 172.16.1.21 /[172.16.1.21]
NETMASK 255.255.0.0 /[255.255.0.0]
ROUTE 0.0.0.0 /[0.0.0.0]
SEC. ADDR 0.0.0.0 /[0.0.0.0]
SEC. NET 0.0.0.0 /[0.0.0.0]
RESULT : OK
0.QUIT
1.DISPLAY CONFIGURATION
2.TEMPORARY SETTING
SU>
(4) Check
(5) Enter
FR6H2544.EPS

(6) Power OFF and then back ON the RU and verify that the cassette loading lamp of the RU is illuminated.



◆ *INSTRUCTION* ◆

If no connection is established between the CL and RU even after the procedures described above are performed, the IP addresses of the CL and RU should be checked.

7.2 Action to be Taken When the RU Application Software is Damaged

This section describes the procedures for updating the application software if the RU application software is corrupted or damaged (the M-Utility cannot be started).

CAUTIONS

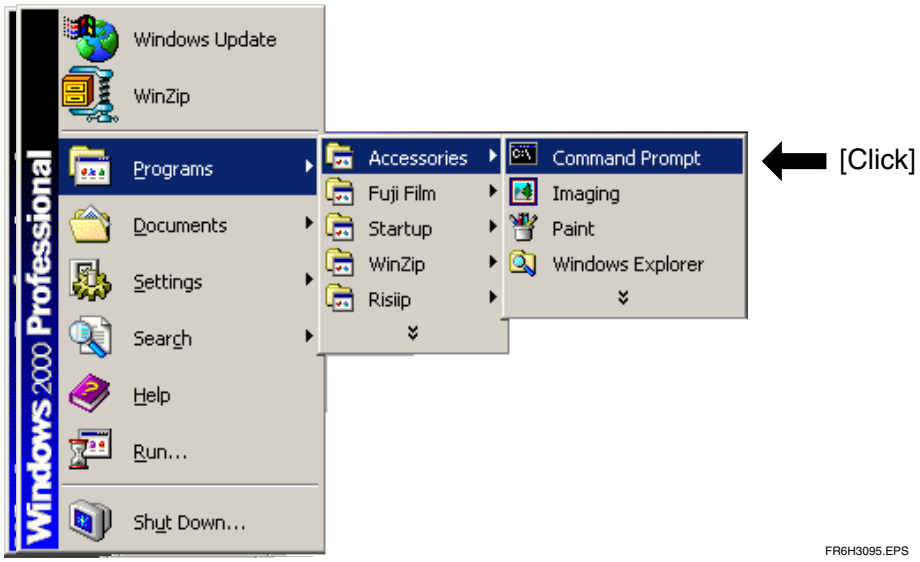
When the M-Utility can be started (logged in), the procedures described here should not be performed.
If the procedures were performed inadvertently even though the M-Utility can be started, then the CPU12A board should be replaced with a new one.

◆ NOTE ◆

The IP address of the CL where the procedures are to be performed should always be set to "172.16.1.20".
☞ *"7.3 Procedures for Changing the IP Address of the CL"*

■ Procedures for Taking Action When the RU Application Software is Damaged

(1) From the [Start] menu of the CL, open Command Prompt.



"c:>" appears on screen.

(2) Enter the IP address of the RU that has been set (for example, “telnet 172.16.1.10”).
“RU[ru0] login:” appears on screen.

(3) Type in “cr-ir346”.
“Password:” appears on screen.

(4) Type in “cr-ir346”.
“->” appears on screen.

(5) Type in “softupdate”.
Once the process ends normally, “Write OK” appears on screen.

7.3 Procedures for Changing the IP Address of the CL

■ Changing the CL (IP Address/NET MASK) (from User Setting to Default Setting)

◆ *NOTES* ◆

• When the CPU12A board is replaced with a new one, it is necessary to change the IP address and NET MASK settings of the CL.
• For the machine where the IP address of the CL has been set at its default value, it is unnecessary to perform the procedures described here.

(1) Power ON the RU.

(2) Switch the CL screen to the desktop screen.

◇ *REFERENCE* ◇

To switch the CL screen to the desktop screen, hold down the <SHIFT> key and select "Shut Down" from the "FUJI FILM" menu.

(3) Double-click

on the desktop.

⇨ The "My Computer" window opens.

(4) Double-click

.

⇨ The "Control Panel" window opens.

(5) Double-click

.

⇨ The "Network and Dial-up connection" window opens.

(6) Double-click

.

⇨ The “Local Area Connection” window opens.

◇ ***REFERENCE*** ◇

On Windows 2000, the “Local Area Connection” icon may not appear on the display if your PC is not connected to other equipment (RU) with a network cable.

(7) Click

.

⇨ The “Local Area Connection Properties” window opens.

(8) Choose

and then click

.

⇨ The “Internet Protocol (TCP/IP) Properties” window opens.

(9) Choose

.

(10) Perform the following setup steps:

LB00000430.EPS

(11) Click

.

⇨ You are returned to the “Local Area Connection Properties” window.

(12) Click

.

⇨ The system returns to the desktop screen.

◇ ***REFERENCE*** ◇

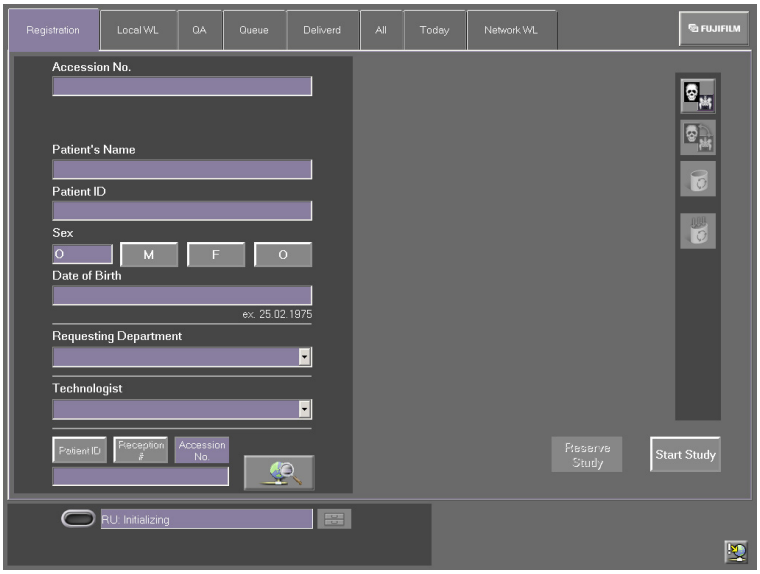
When a window appears prompting you to restart the system, click [Yes].
Once the OS has started, the CL-AP will start up automatically.

■ Verifying the connection after IP address changes

(1) Click Start and then sequentially choose “Programs”, “Fuji Film”, and “FCR”.

⇨ The CL-AP starts up in about one minute.

The RU initialization message appears on the CL monitor. The RU becomes available in about one minute.



00000195.EPS

(2) From the CL user window (Registration), set patient data and exposure menu, and then click Start Study.

⇨ Both the CL-AP window lamp and the RU panel’s cassette insertion lamp go on.

(3) Set the cassette in the RU's cassette setting unit and make sure that images are transferred to the CL.

◇ ***REFERENCE*** ◇

Be sure not to incorrectly enter an IP address for "NETWORK CONFIG" – "ALL OTHER NODES" – "ru0" settings, otherwise an image transfer error will be indicated.

(4) Click at the upper right corner of the window.

(5) Click

.

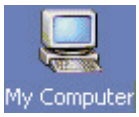
➪ A menu opens.

(6) Hold down the <Shift> key and click

.

➪ The CL-AP exits.

■ Changing the CL (IP Address/NET MASK) (from Default Setting to User Setting)

(1) Double-click 

on the desktop.

⇨ The “My Computer” window opens.

(2) Double-click

.

⇨ The “Control Panel” window opens.

(3) Double-click

.

⇨ The “Network and Dial-up connection” window opens.

(4) Double-click

.

⇨ The “Local Area Connection” window opens.

◇ ***REFERENCE*** ◇

On Windows 2000, the “Local Area Connection” icon may not appear on the display if your PC is not connected to other equipment (RU) with a network cable.

(5) Click Properties.

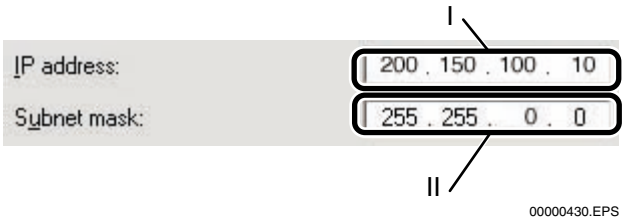
➪ The “Local Area Connection Properties” window opens.

(6) Choose Internet Protocol (TCP/IP) and then click Properties.

➪ The “Internet Protocol (TCP/IP) Properties” window opens.

(7) Choose Use the following IP address:.

(8) Change the IP address to the user setting that has been noted at “■ Checking the IP Addresses of the CL and RU”.



I. Enter the IP address of the CL that has been set by the user (example: 200.150.100.10).

II. Enter a subnet mask.

(9) Click OK.

➪ You are returned to the “Local Area Connection Properties” window.

(10) Click OK.

➪ The system returns to the desktop screen.

◇ ***REFERENCE*** ◇

When a window appears prompting you to restart the system, click [Yes].
Once the OS has started, the CL-AP will start up automatically.

■ Checking Connection After Changing the IP Address

(1) Check the connection.

☞ “[4] Change the CL (IP address/NET MASK), ■ Checking Connection After Changing the IP Address”

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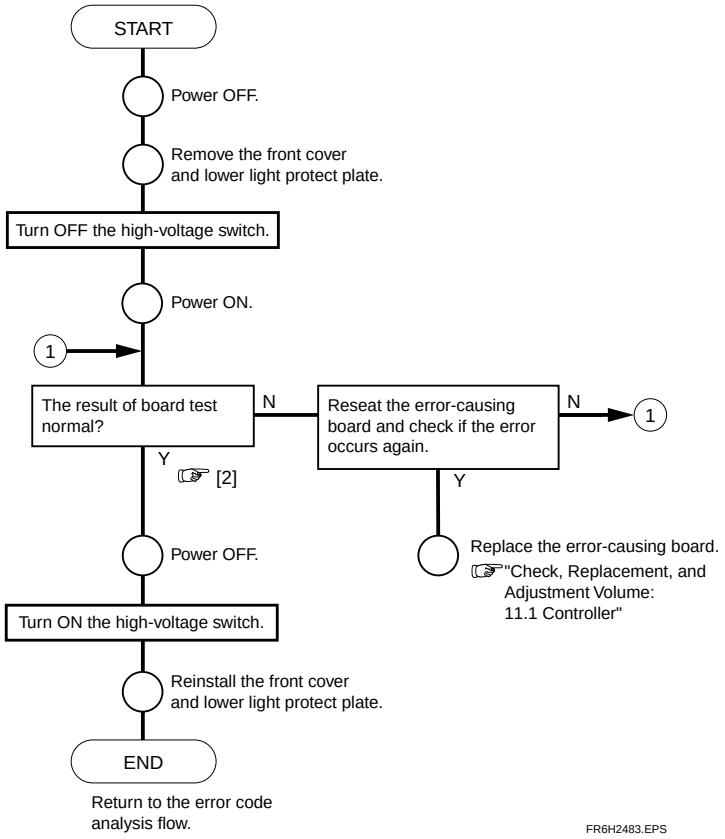
8. Board Tests in M-Utility

[1] Analysis Flow



[2] Board Test

● Procedures

(1) Select the board to be tested.

[4][ENT] → [1][ENT] → [*][ENT]

A prompt appears to ask you to enter the number of tests repeated.

◇ *SUPPLEMENTARY NOTE* ◇

For [*], enter the menu number for the board to be tested.
CPU12A: 2
SCN12A: 3
INV12A: 4
SND12A: 5
SUB CPU: 6

(2) Enter “n” (number n of testes repeated).

Board tests are executed “n” times, and once they are completed normally, “RESULT: OK” appears.

To abort the processing in progress, hit [Ctrl]+[C] and then [ENT].

◇ *SUPPLEMENTARY NOTE* ◇

For “n”, the number of tests repeated should be entered over a range from 1 to 99999.

● Display

```
| EU>AT>* ..................................................... (1)    |
|                                                                      |
| INPUT REPEAT TIMES.                                                  |
| INPUT(0 - 99999):n ......................................... (2)    |
|                                                                      |
| COMMAND IS IN PROGRESS.                                              |
| INTERRUPTION : HIT[^C] + ENT KEY                                     |
|                                                                      |
| RESULT : OK                                                          |
```

[GOOD indication]

RESULT: OK

[NG indication]

RESULT: XXXXX

XXXXX denotes error code.

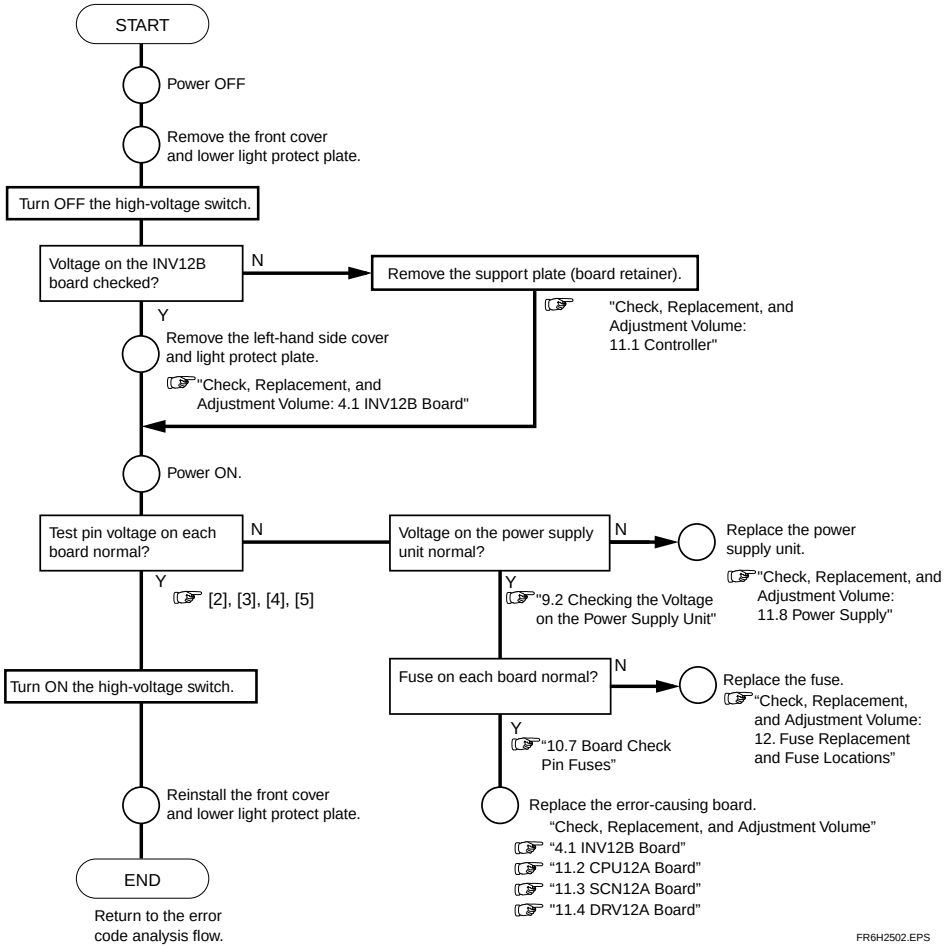
9. Checking the Voltage

WARNING

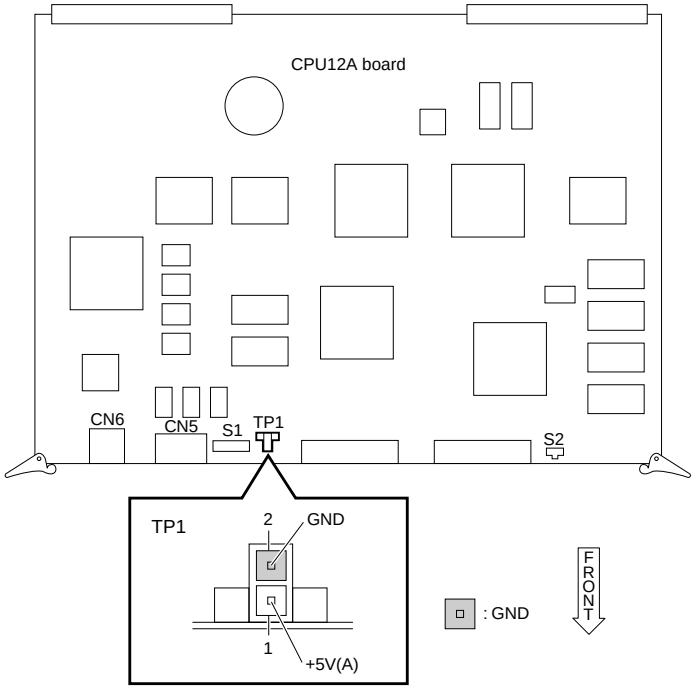
To avoid possible electric shock hazard from high voltage, observe the following precautions.
• Do not touch the power supply terminals.
• When making voltage measurements, do not touch the probe (metal portion) of a tester.

9.1 Checking the Voltage on Board Test Pins (Connectors)

[1] Analysis Flow

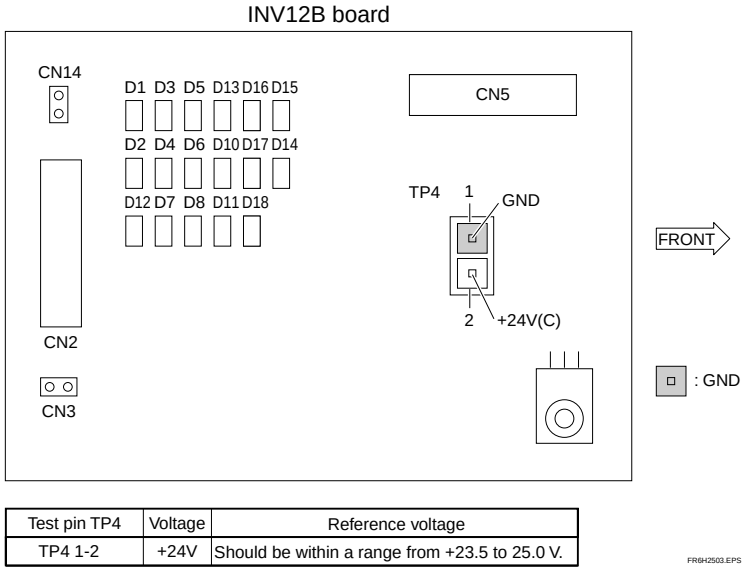

START
Power OFF
Remove the front cover and lower light protect plate.
Turn OFF the high-voltage switch.
Voltage on the INV12B board checked?
N
Remove the support plate (board retainer).
☞ "Check, Replacement, and Adjustment Volume: 11.1 Controller"
Y
Remove the left-hand side cover and light protect plate.
☞"Check, Replacement, and Adjustment Volume: 4.1 INV12B Board"
Power ON.
Test pin voltage on each board normal?
N
Voltage on the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ [2], [3], [4], [5]
Y
☞"9.2 Checking the Voltage on the Power Supply Unit"
Turn ON the high-voltage switch.
Fuse on each board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.7 Board Check Pin Fuses"
Reinstall the front cover and lower light protect plate.
Replace the error-causing board.
"Check, Replacement, and Adjustment Volume"
☞ "4.1 INV12B Board"
☞ "11.2 CPU12A Board"
☞ "11.3 SCN12A Board"
☞ "11.4 DRV12A Board"
END
Return to the error code analysis flow.
FR6H2502.EPS

[2] Checking the Voltage on the CPU12A Board Test Pin (TP1)



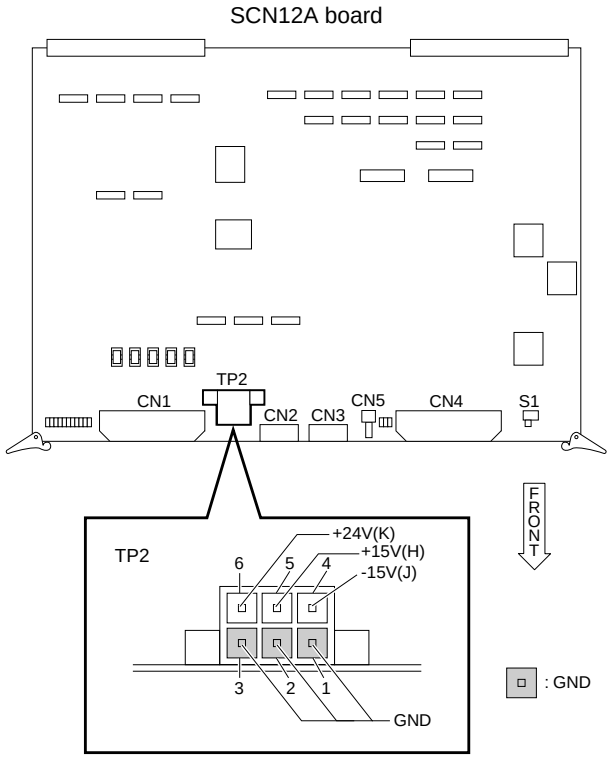
Test pin TP1	Voltage	Reference voltage
TP1 1-2	+5V	Should be within a range from +4.95 to 5.20 V.

[3] Checking the Voltage on the INV12B Board Test Pin (TP4)



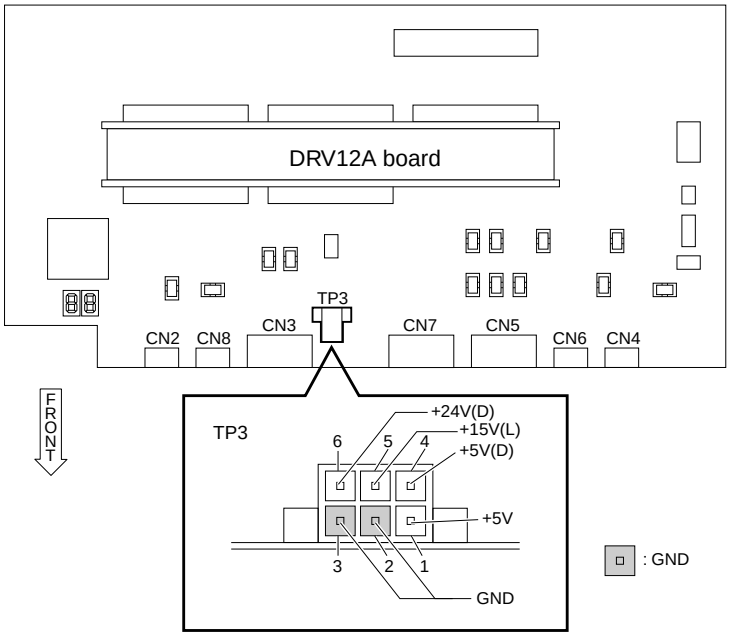
Test pin TP4	Voltage	Reference voltage
TP4 1-2	+24V	Should be within a range from +23.5 to 25.0 V.

[4] Checking the Voltage on the SCN12A Board Test Pin (TP2)



Test pin TP2	Voltage	Reference voltage
TP2 3-6	+24V	Should be within a range from +23.0 to 25.0 V.
TP2 2-5	+15V	Should be within a range from +14.4 to 15.5 V.
TP2 1-4	-15V	Should be within a range from -14.4 to -15.5 V.

[5] Checking the Voltage on the DRV12A Board Test Pin (TP3)

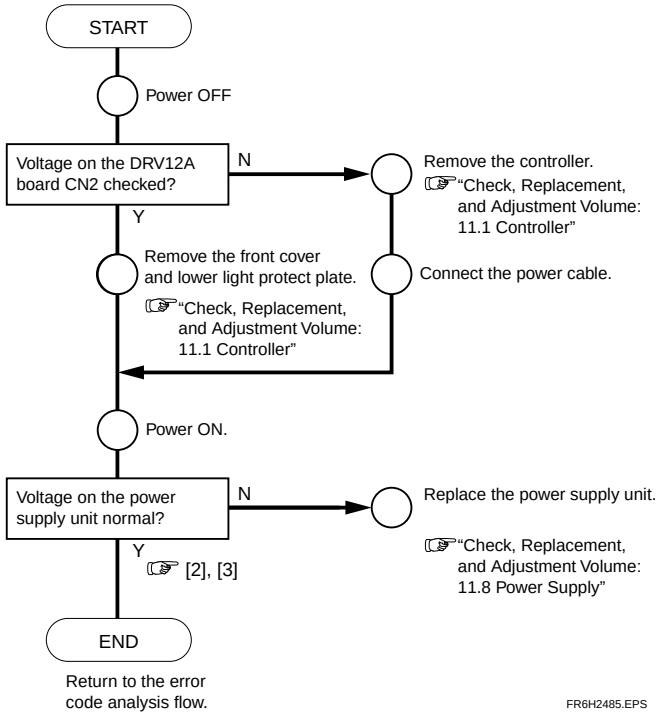


Test pin TP3	Voltage	Reference voltage
TP3 3-6	+24V	Should be within a range from +23.5 to 25.0 V.
TP3 3-5	+15V	Should be within a range from +14.4 to 15.5 V.
TP3 3-4	+5V	Should be within a range from +4.80 to 5.20 V.
TP3 3-1	+5V	Should be within a range from +4.75 to 5.25 V.

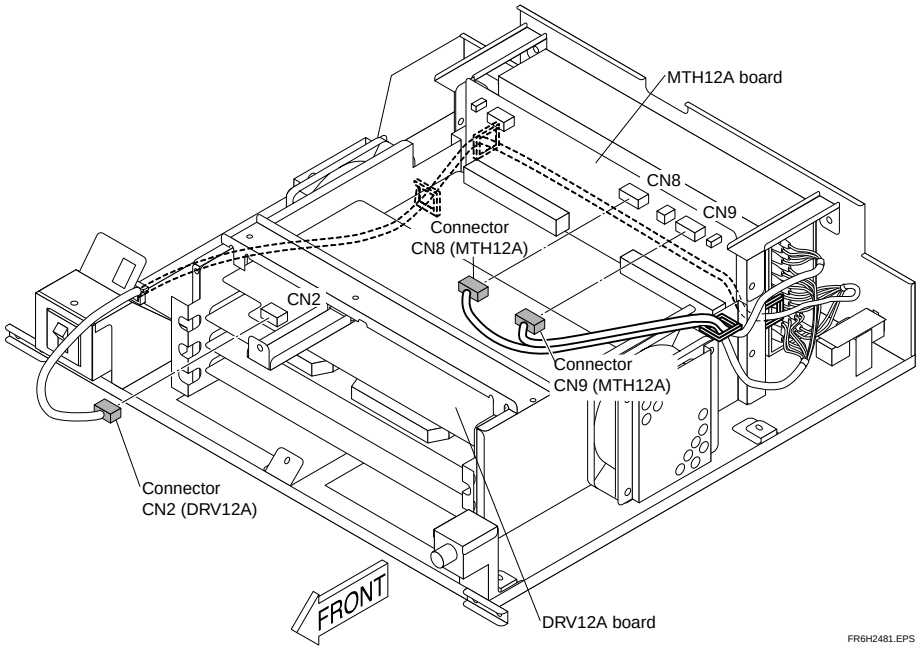
FR6H2505.EPS

9.2 Checking the Voltage on the Power Supply Unit

[1] Analysis Flow



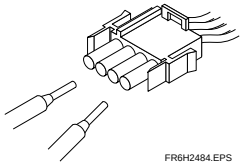
[2] Connector Locations



[3] Checking the Voltage

(1) Disconnect the connector to be measured.

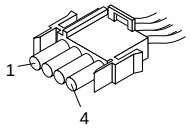
(2) Check the voltage as illustrated below.



FR6H2484.EPS

● MTH12A board

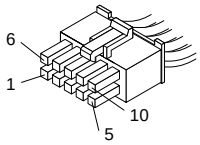
CN9 (MTH12A)



Measurement point	Reference voltage	SLOT No.
CN9 1-3	+4.95 to 5.20V	SLOT1 (A1)
CN9 2-4	+4.95 to 5.20V	SLOT1 (A2)

FR6H2478.EPS

CN8 (MTH12A)

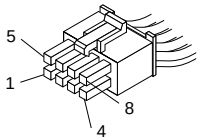


Measurement point	Reference voltage	SLOT No.
CN8 1-6	+23.5 to 25.0V	SLOT2 (B)
CN8 2-7	+23.5 to 25.0V	SLOT2 (C)
CN8 3-8	+14.4 to 15.5V	SLOT4 (H)
CN8 4-9	-14.4 to -15.5V	SLOT4 (J)
CN8 5-10	+23.0 to 25.0V	SLOT5 (K)

FR6H2479.EPS

● DRV12A board

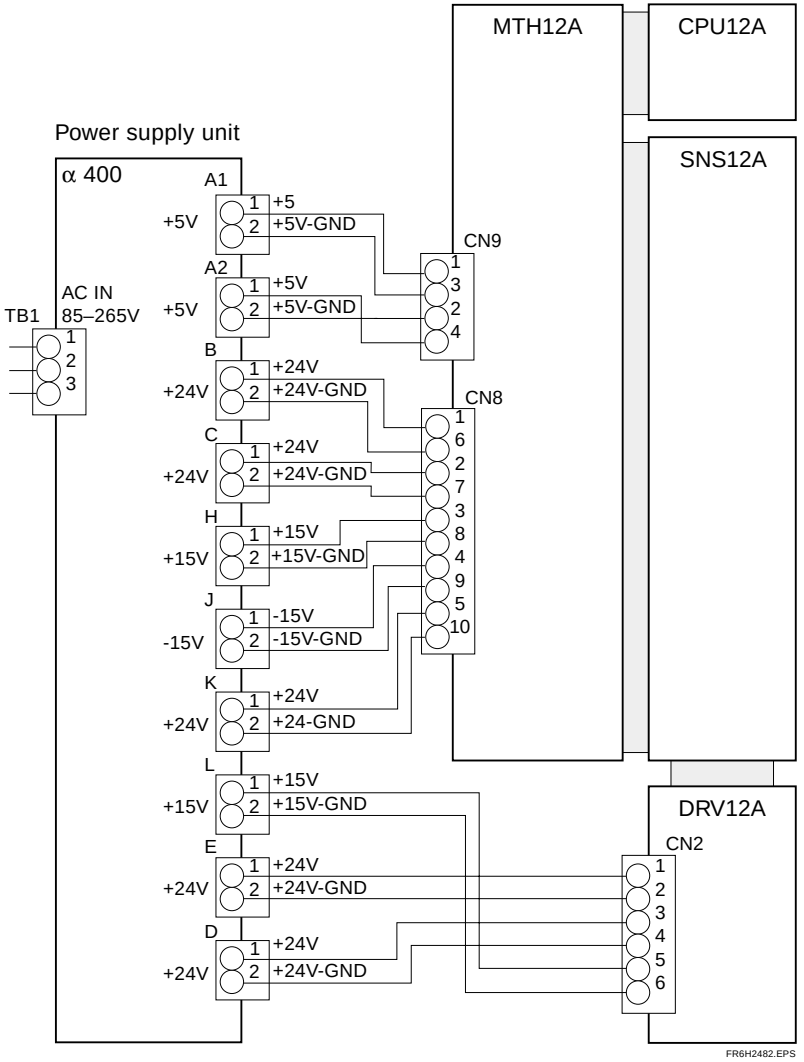
CN2 (DRV12A)



Measurement point	Reference voltage	SLOT No.
CN2 5-6	+14.4 to 15.5V	SLOT5 (L)
CN2 1-2	+23.5 to 25.0V	SLOT3 (E)
CN2 3-4	+23.5 to 25.0V	SLOT3 (D)

FR6H2480.EPS

[4] Block Diagram

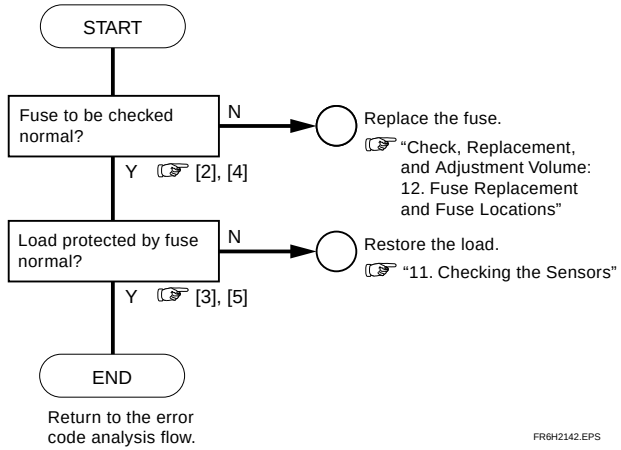


FR6H2482.EPS

10. Checking the Fuses

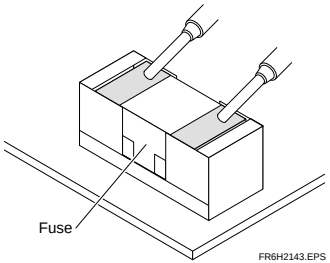
10.1 Sensor-Related Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.



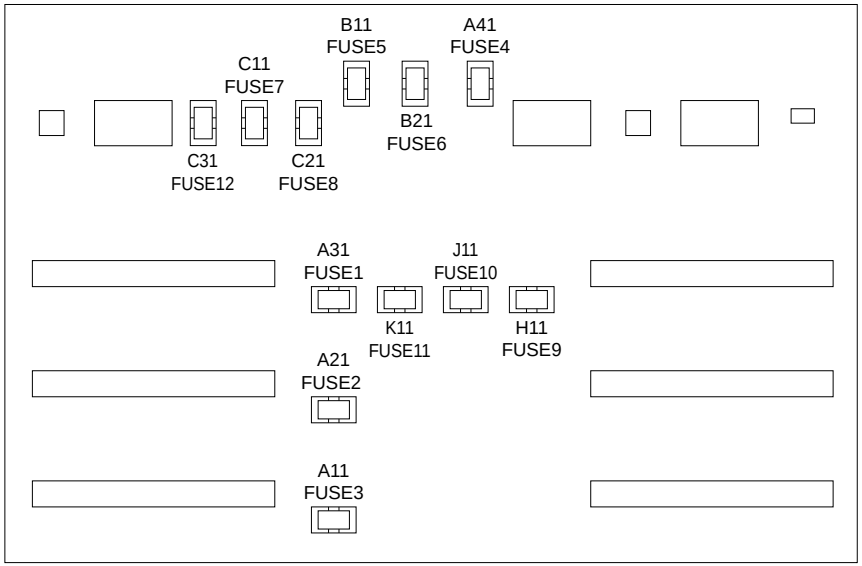
[3] Checking the Cable

Check the following between the portions <A and B> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

[4] Fuse Locations

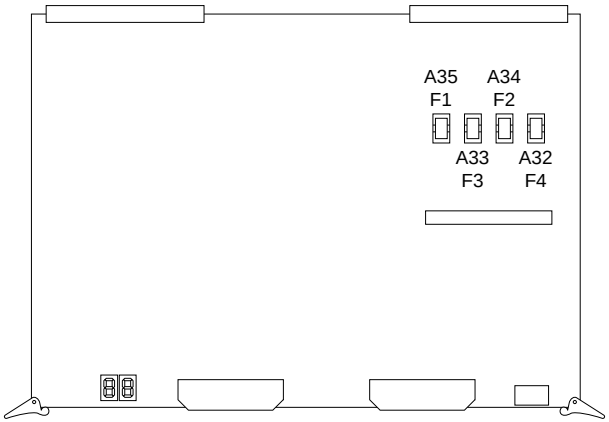
MTH12A board



FUSE1-FUSE12: Marked numbers on the board

FR6H2507.EPS

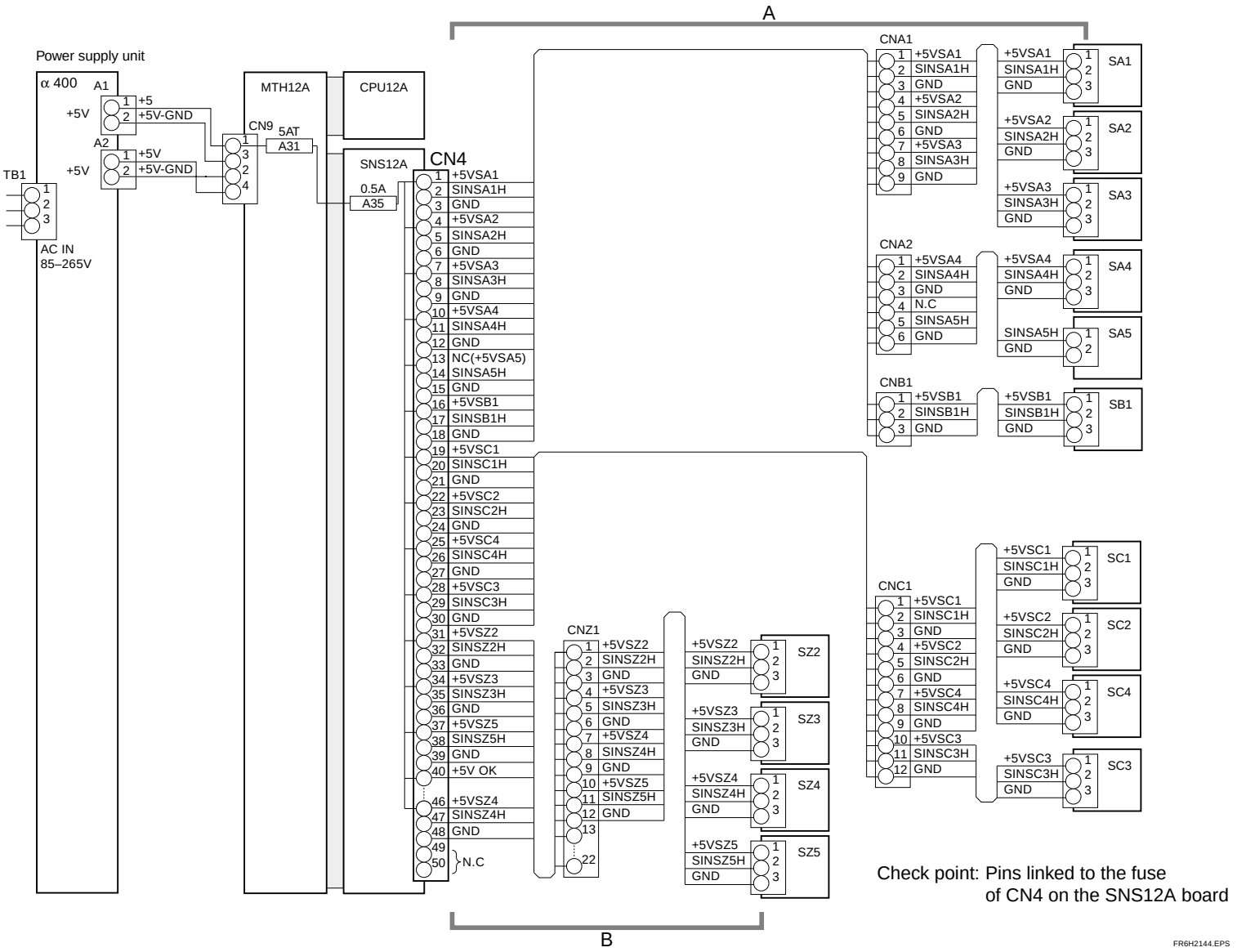
SNS12A board



F1-F4: Marked number on the board

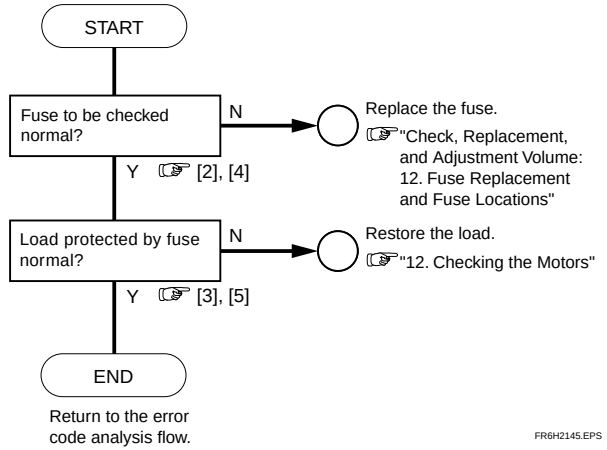
FR6H2509.EPS

[5] Block Diagram



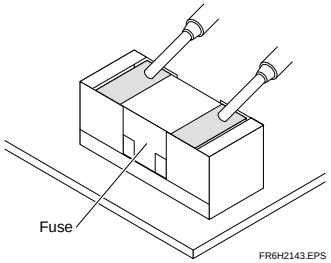
10.2 Motor-Related Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.

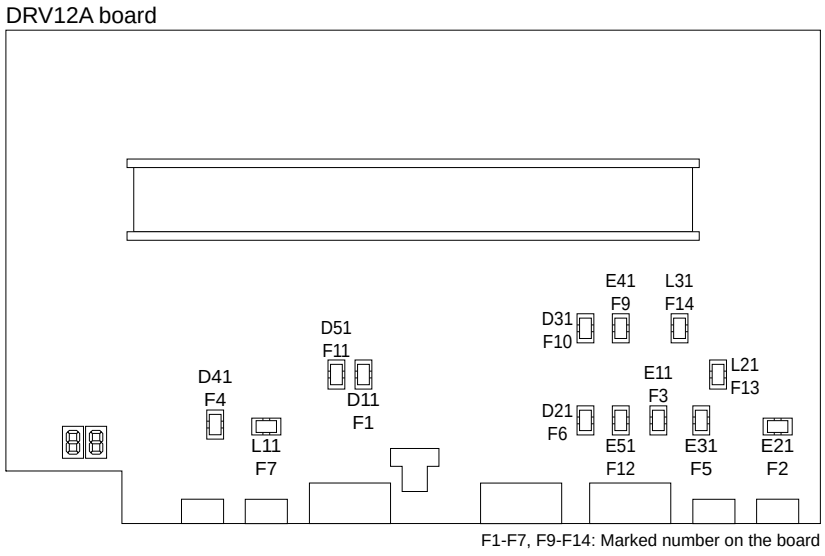


[3] Checking the Cable

Check the following between the portions <A> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

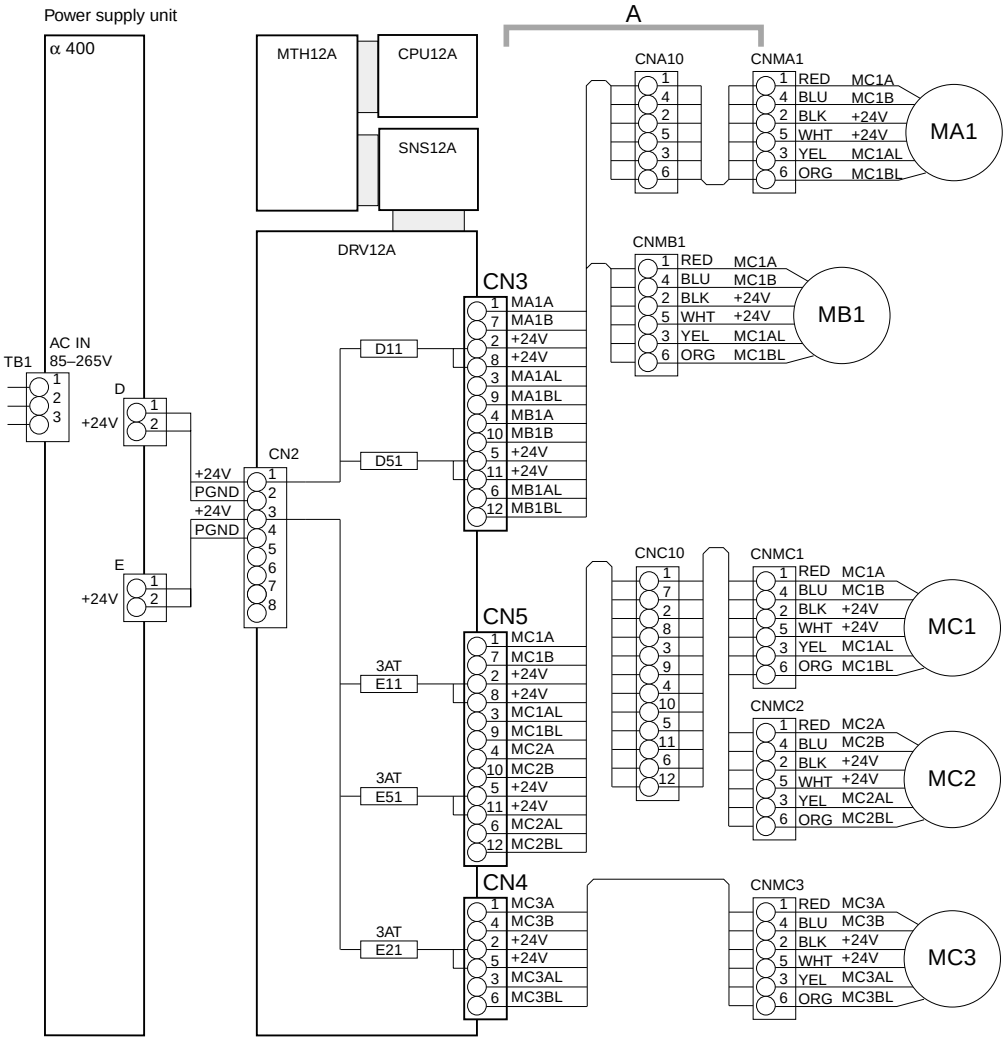
[4] Fuse Locations



F1-F7, F9-F14: Marked number on the board

FR6H2510.EPS

[5] Block Diagram

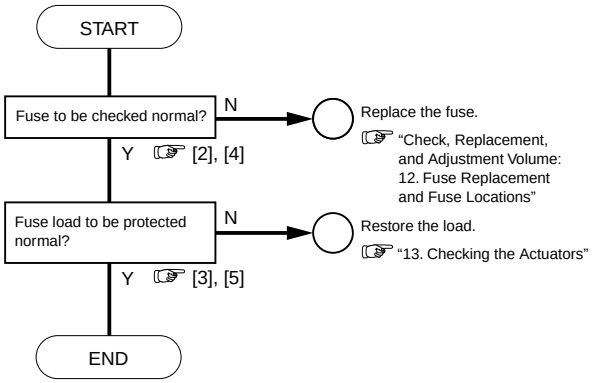


Check point: Pins linked to the fuses of CN3, CN4, and CN5 on the DRV12A board

FR6H2146.EPS

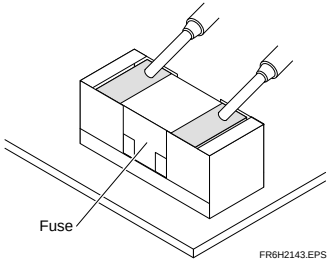
10.3 Actuator-Related Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.



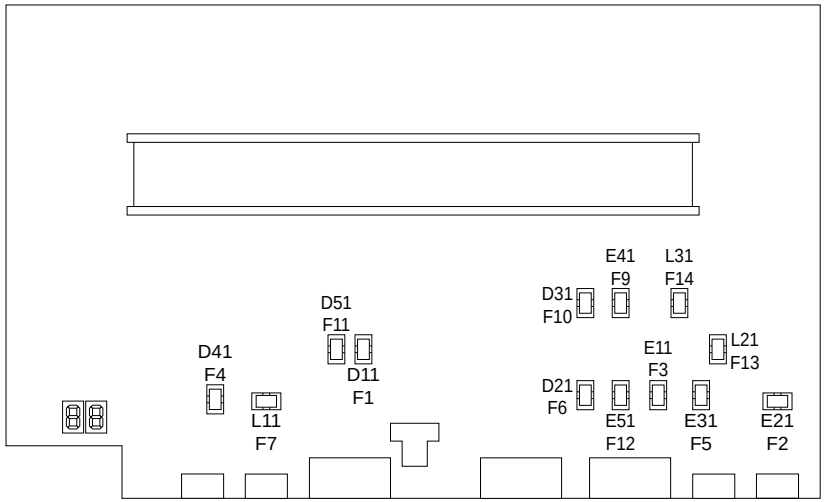
[3] Checking the Cable

Check the following between the portions <A> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

[4] Fuse Locations

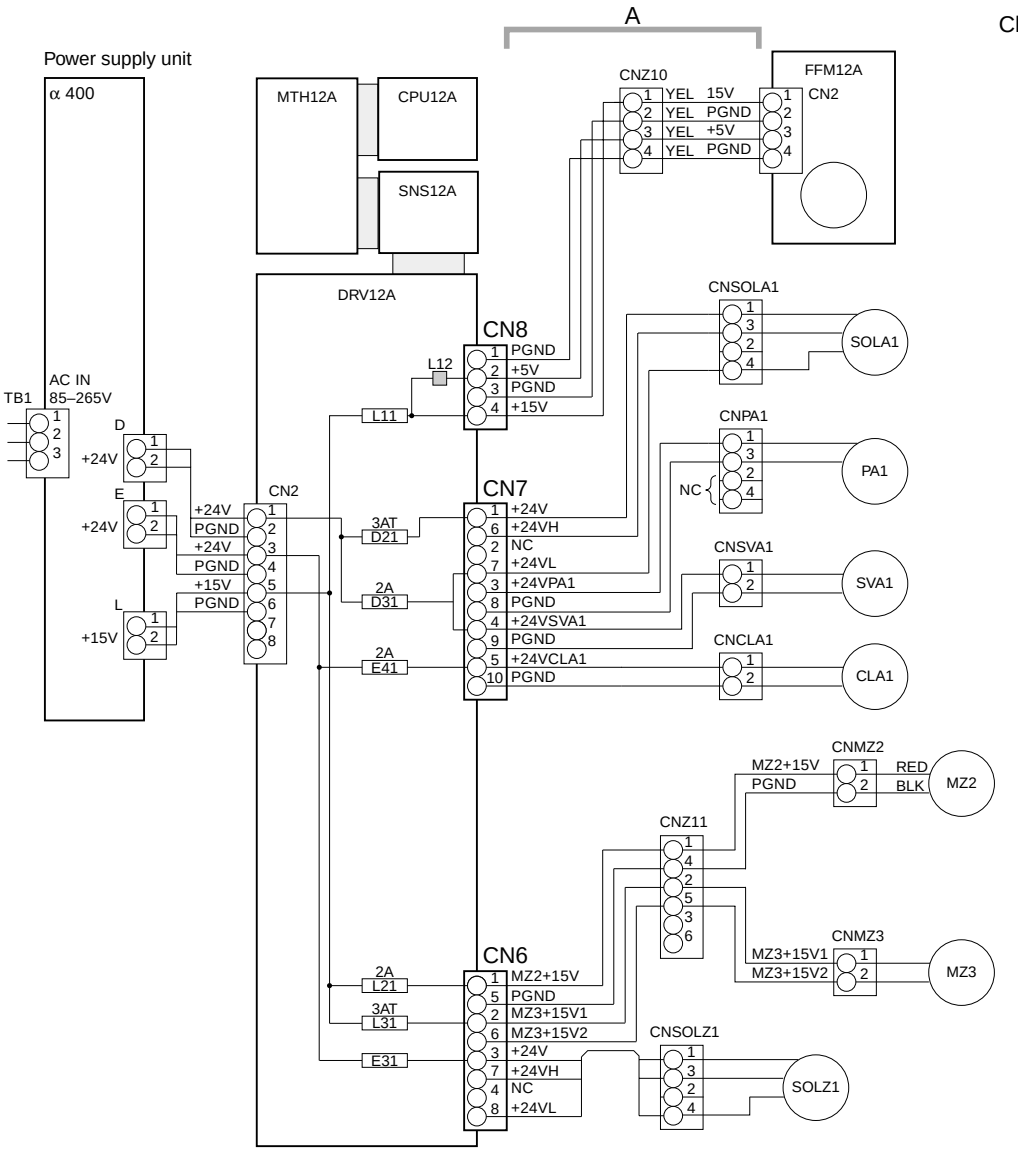
DRV12A board



F1-F7, F9-F14: Marked number on the board

FR6H2510.EPS

[5] Block Diagram



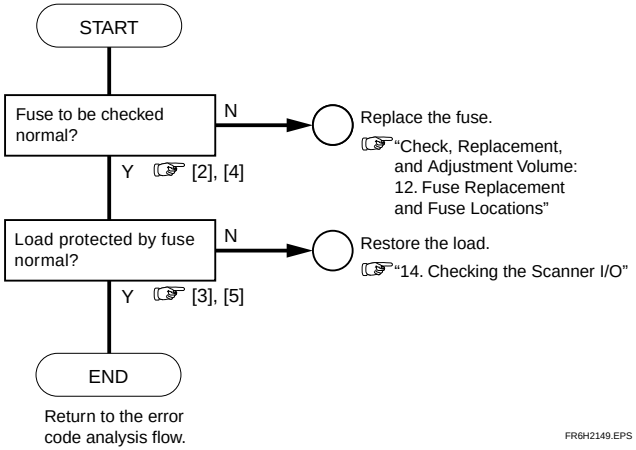
Check point: Pins linked to the fuses of CN6, CN7, and CN8 on the DRV12A board

: +15V → +5V regulator

FR6H2148.EPS

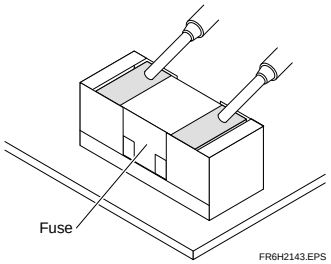
10.4 Scanner-Related Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.



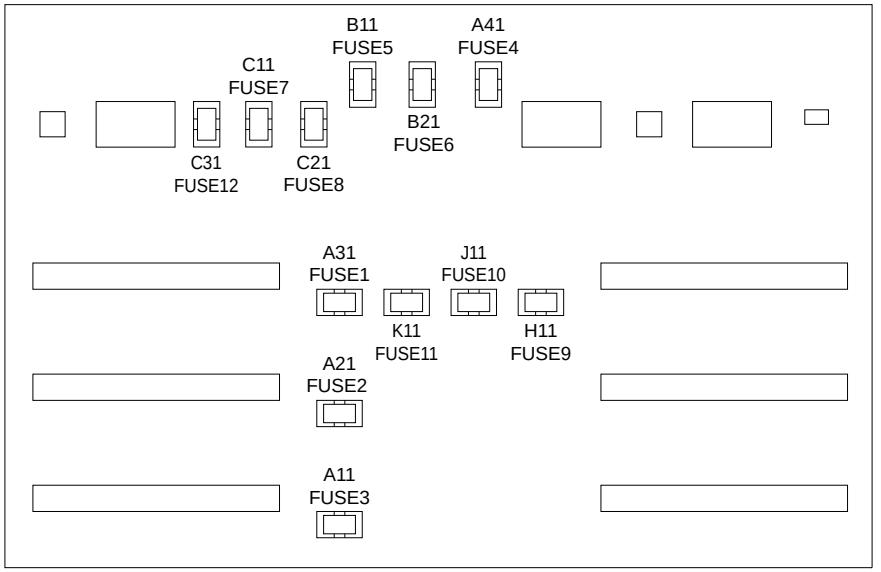
[3] Checking the Cable

Check the following between the portions <A, B, and C> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

[4] Fuse Locations

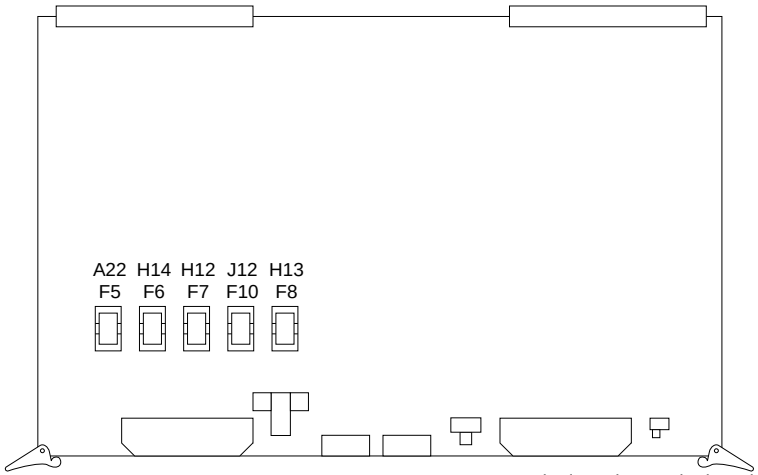
MTH12A board



FUSE1-FUSE12: Marked numbers on the board

FR6H2507.EPS

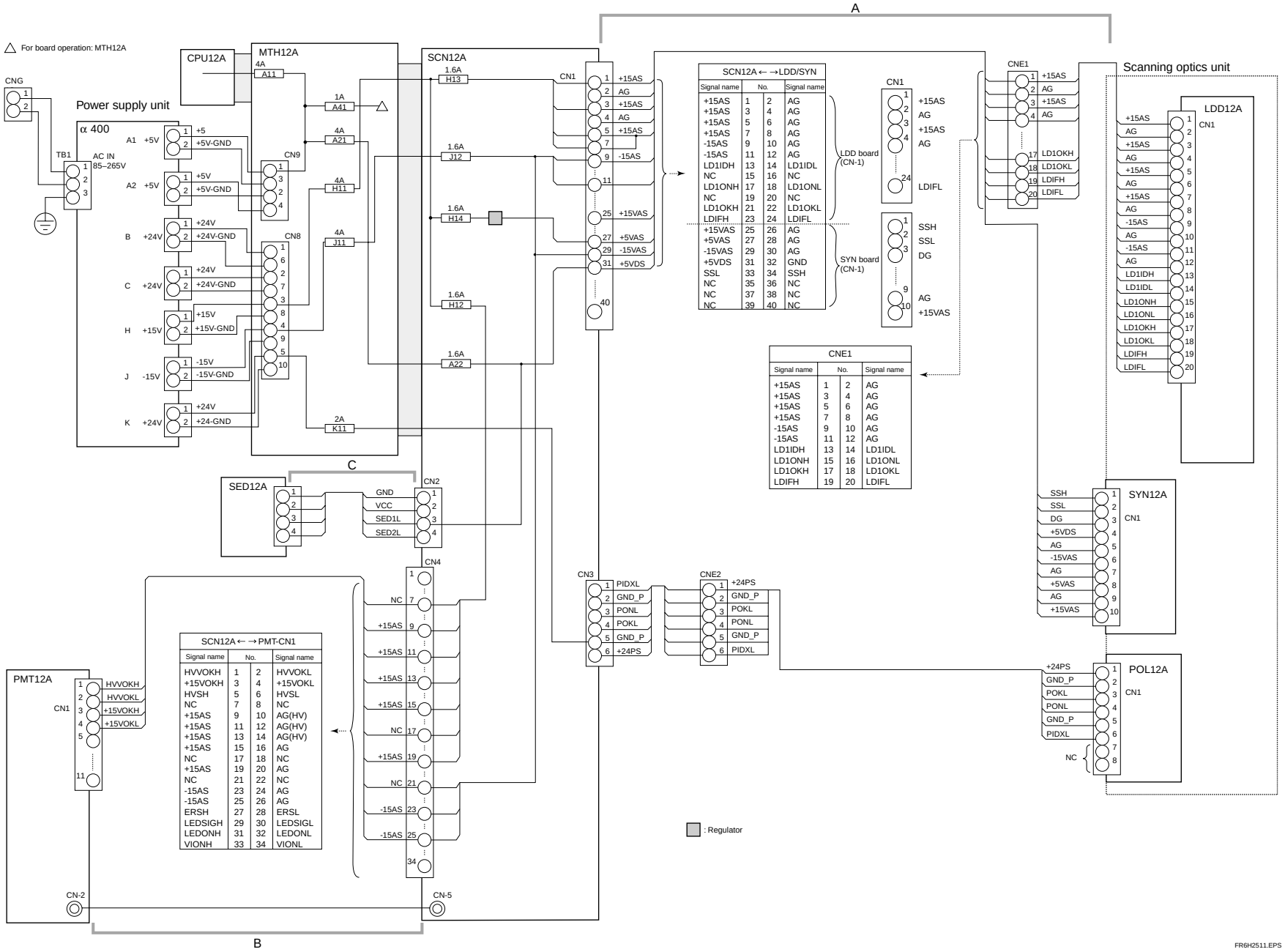
SCN12A board



F1-4: Marked number on the board

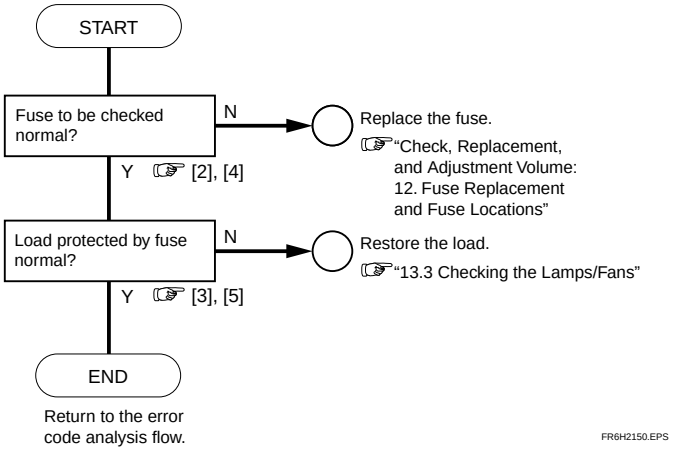
FR6H2508.EPS

[5] Block Diagram



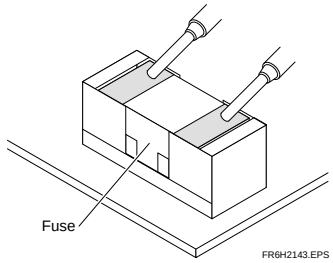
10.5 Erasure Lamp and Cooling Fan Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.



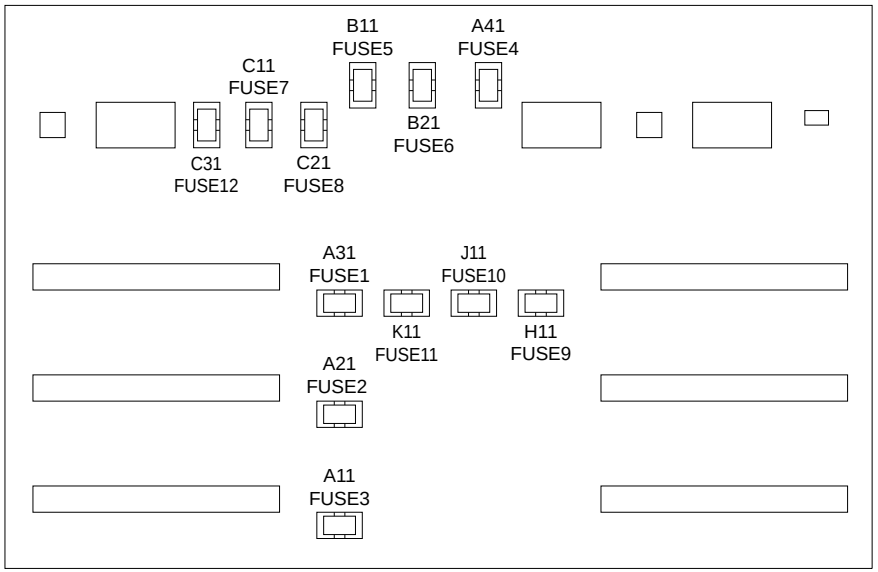
[3] Checking the Cable

Check the following between the portions <A, B, C, and D> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

[4] Fuse Locations

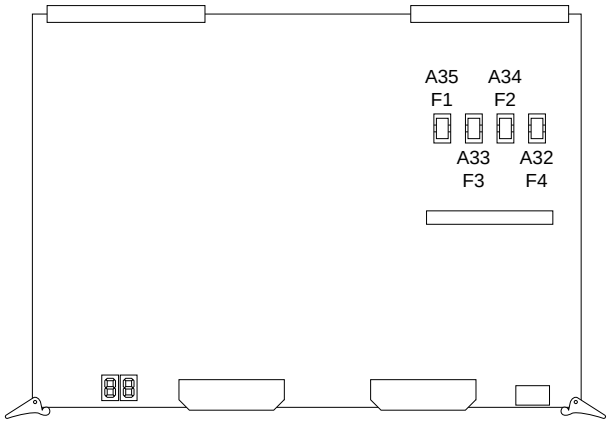
MTH12A board



FUSE1-FUSE12: Marked numbers on the board

FR6H2507.EPS

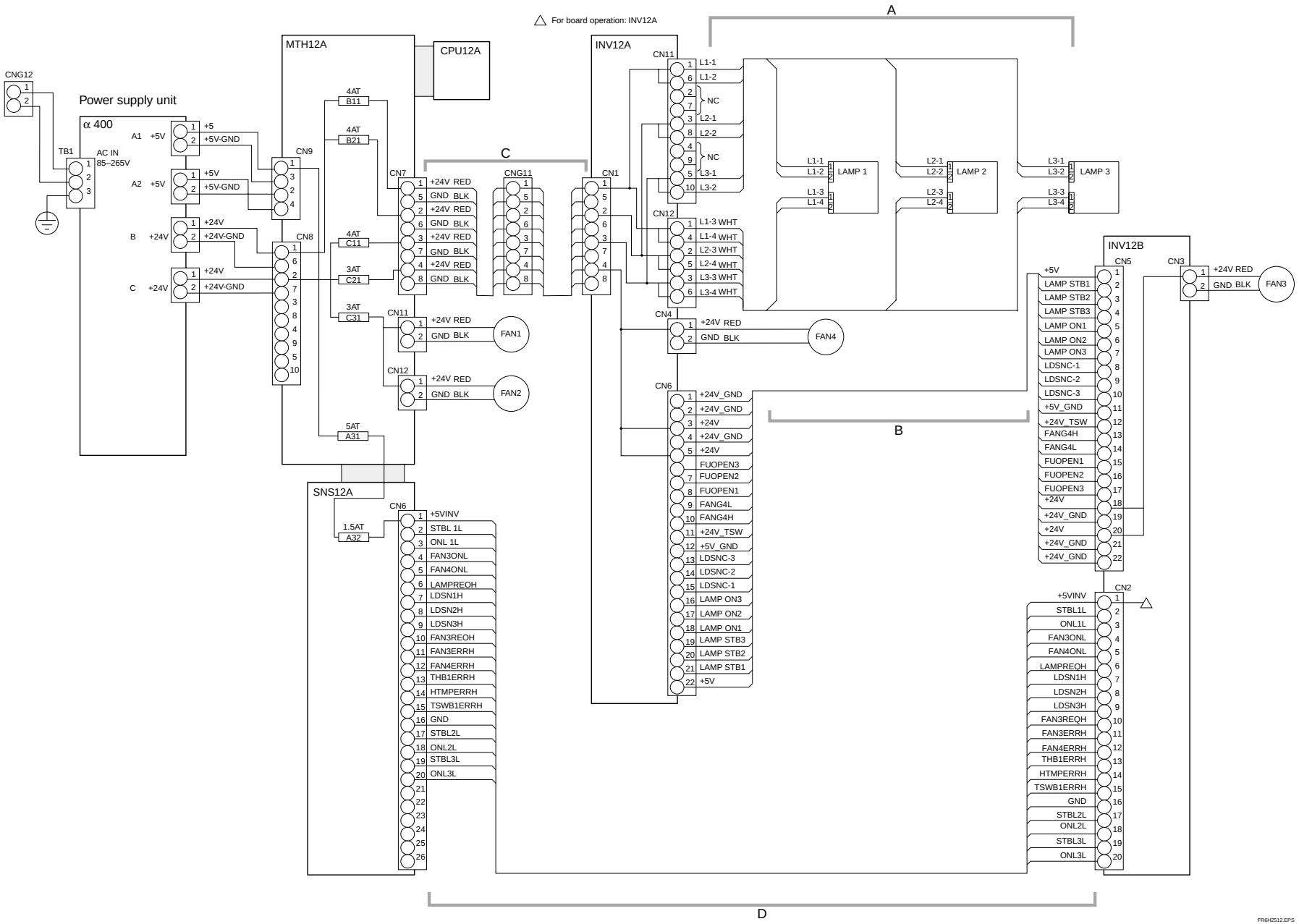
SNS12A board



F1-F4: Marked number on the board

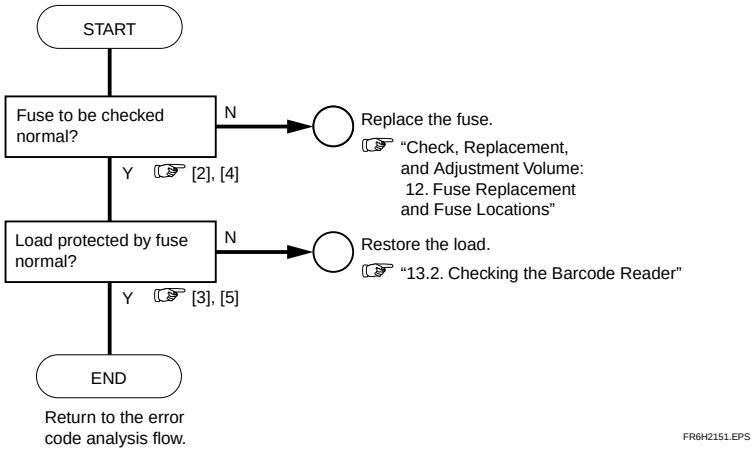
FR6H2509.EPS

[5] Block Diagram



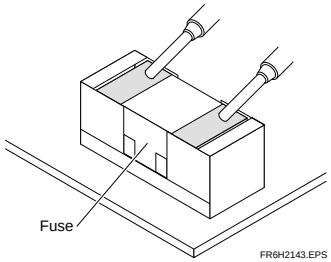
10.6 LED12A Board and Barcode Fuses

[1] Analysis Flow



[2] Checking the Fuse

Check for continuity as illustrated below.



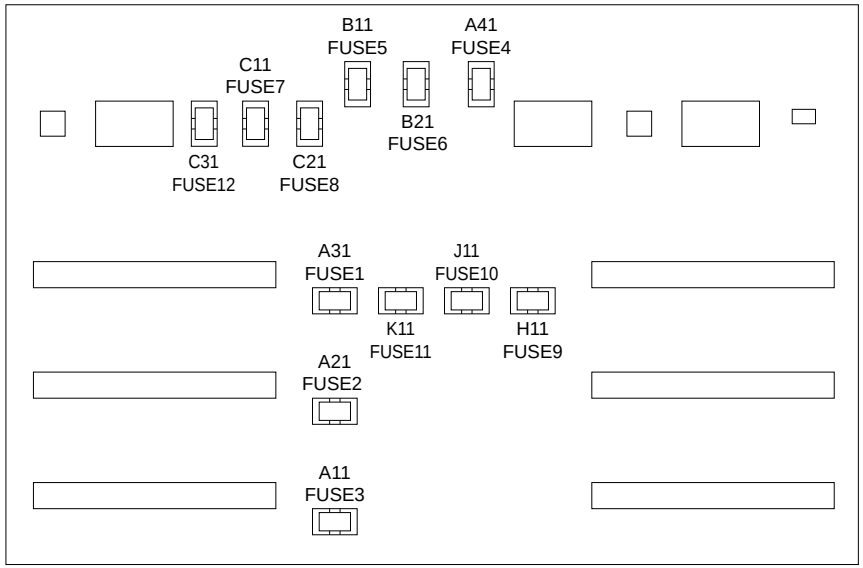
[3] Checking the Cable

Check the following between the portions <A> in the block diagram.

1. Check for shorts between each of the pins and GND → 2Ω or greater.
2. Check for shorts between each of the pins → 2Ω or greater.
3. Check for continuity of each of the pins → 1Ω or less.

[4] Fuse Locations

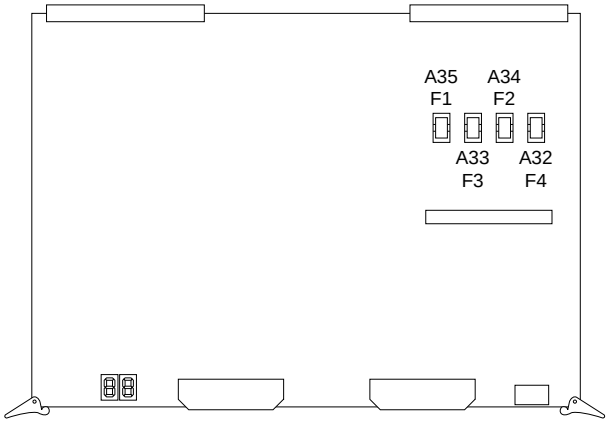
MTH12A board



FUSE1-FUSE12: Marked numbers on the board

FR6H2507.EPS

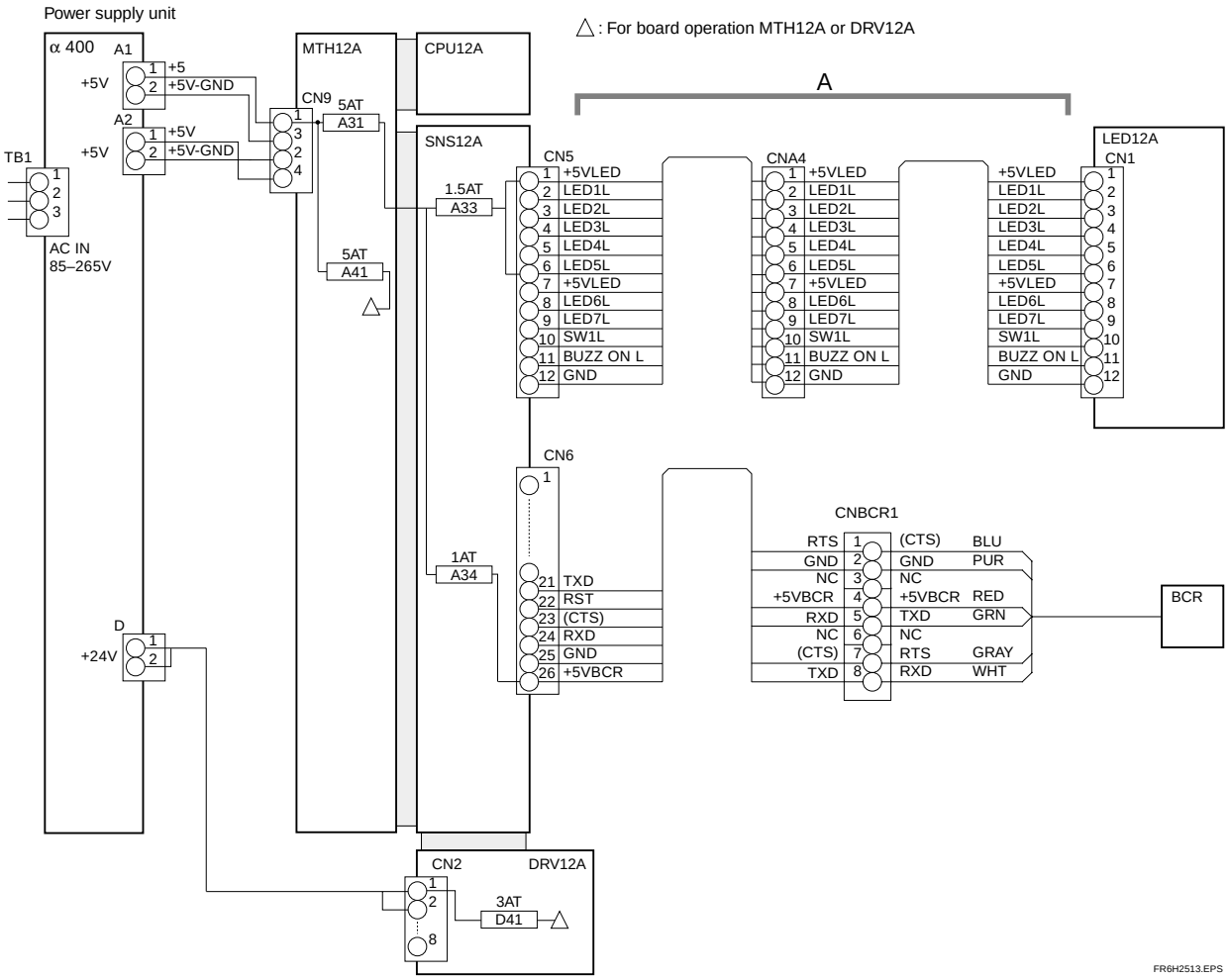
SNS12A board



F1-F4: Marked number on the board

FR6H2509.EPS

[5] Block Diagram



10.7 Board Check Pin Fuses

[1] TP4 24V Error on the INV12B Board (C21 on the MTH12A Board)

☞ “10.5 Erasure Lamp and Cooling Fan Fuses”

[2] TP3 24V/15V Error on the DRV12A Board (D41 on the DRV12A Board)

Replace the DRV12A board.

☞ “Check, Replacement, and Adjustment Volume: 11.6 DRV12A Board”

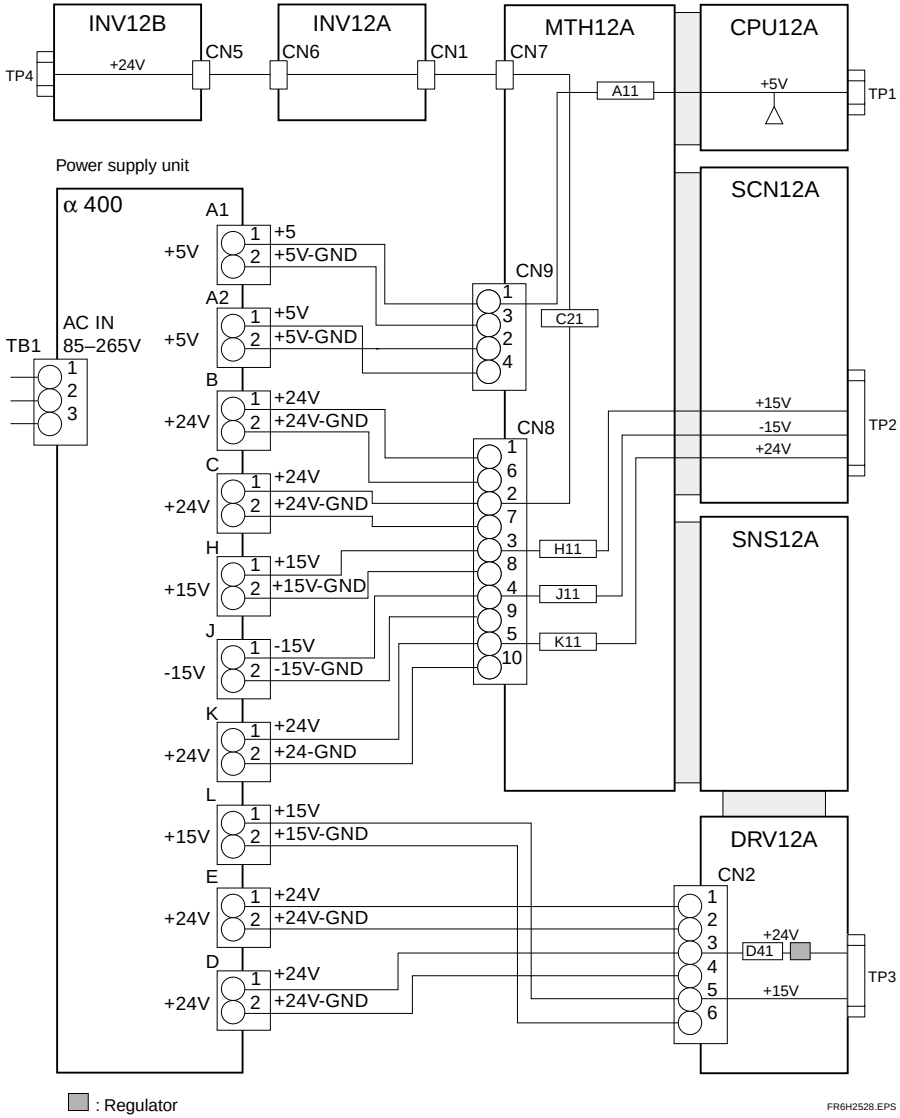
[3] TP2 15V/-15V/24V Error on the SCN12A Board (H11, J11, K11 on the MTH12A Board)

☞ “10.4 Scanner-Related Fuses”

[4] TP1 5V Error on the CPU12A Board (A11 on the MTH12A Board)

☞ “10.4 Scanner-Related Fuses”

[5] Block Diagram



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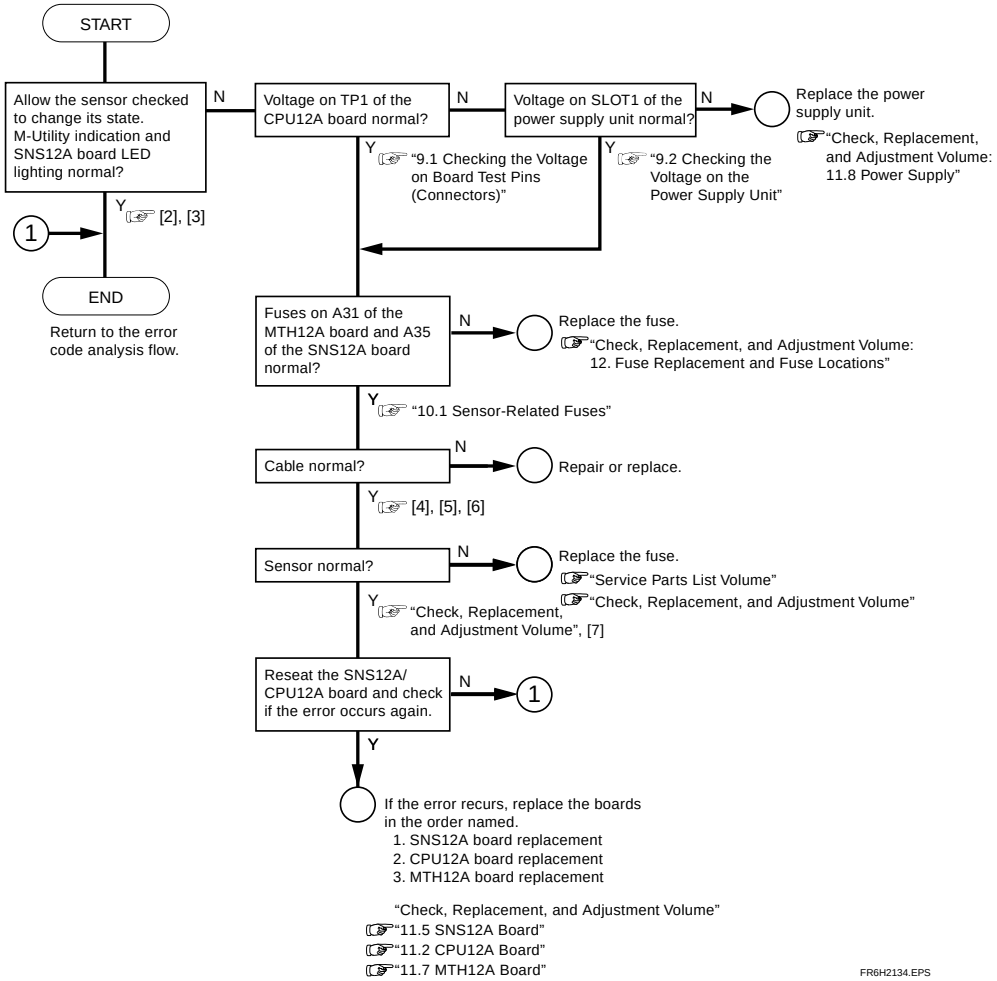
11. Checking the Sensors

11.1 Checking SA1, SA2, SA3, SA4, SA5, and SB1

[1] Analysis Flow


START
Allow the sensor checked to change its state. M-Utility indication and SNS12A board LED lighting normal?
N
Voltage on TP1 of the CPU12A board normal?
N
Voltage on SLOT1 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y ☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on A31 of the MTH12A board and A35 of the SNS12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y ☞ "10.1 Sensor-Related Fuses"
Cable normal?
N
Repair or replace.
Y ☞ [4], [5], [6]
Sensor normal?
N
Replace the fuse.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y ☞ "Check, Replacement, and Adjustment Volume", [7]
Reseat the SNS12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. SNS12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2134.EPS

[2] Monitoring the Sensor in M-Utility

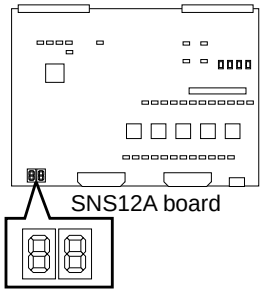
◆ *CHECK* ◆

Make sure that the indication given by the sensor monitoring in M-Utility is consistent with the LED indication.

[6][ENT] → [3][ENT] → [3][ENT]

Allow the sensor to transition to OPEN/CLOSE and verify that the sensor status on the CL screen changes accordingly.

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	SA1	Monitors the cassette ejection detection.	CLOSE	OPEN
	SA2	Monitors the cassette IN detection.	CLOSE	OPEN
	SA3	Monitors the cassette hold detection.	CLOSE	OPEN
	SA4	Monitors the suction cup HP detection.	CLOSE	OPEN
	SA5	Monitors the suction detection.	CLOSE	OPEN
	SB1	Monitors the cassette inlet IP detection.	CLOSE	OPEN

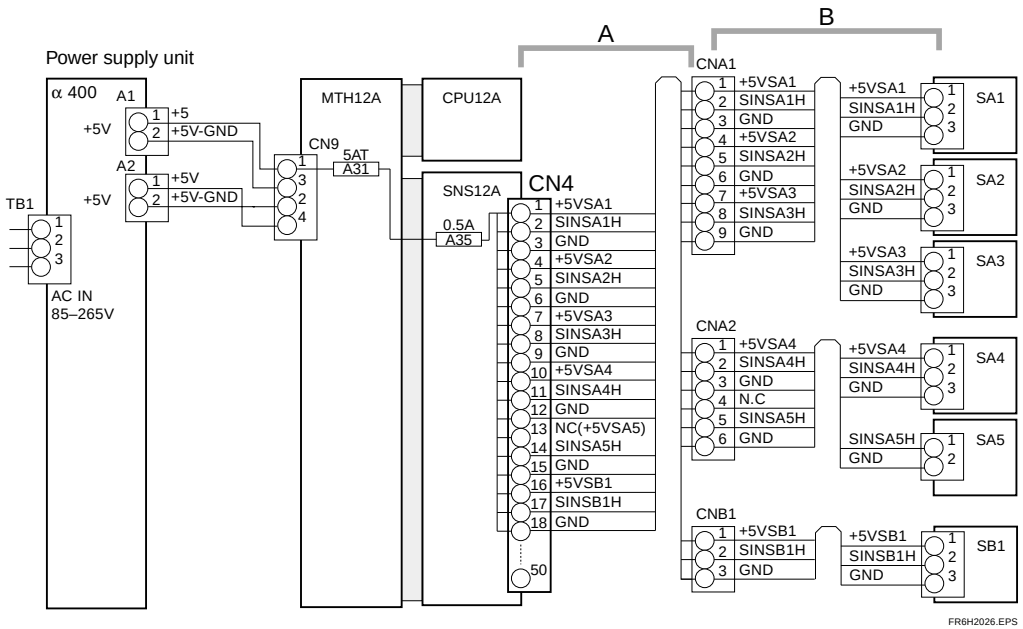
TR6H2004.EPS

[4] Checking the Cable

Check the following between the portions <A and B> in the block diagram.

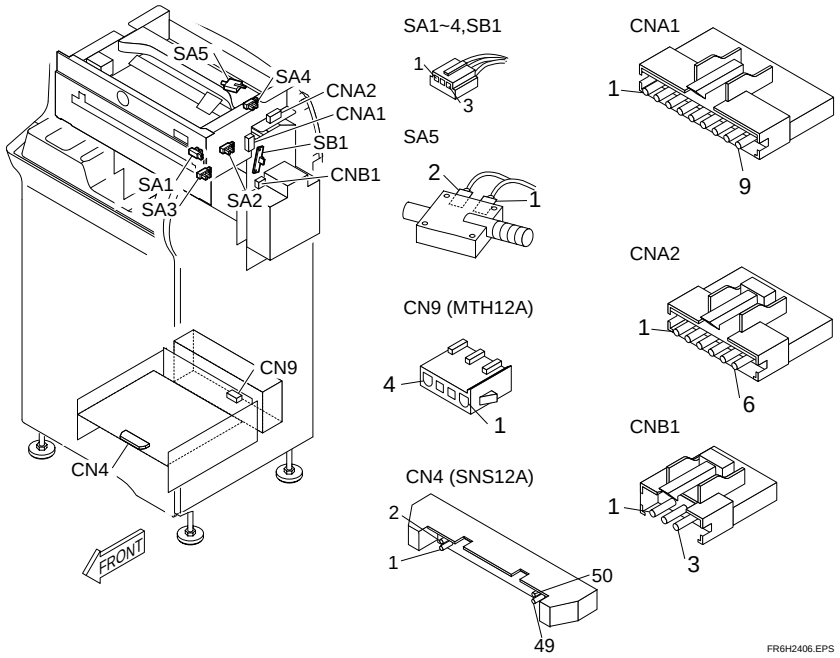
1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram



Check point: Pins 1-18 on CN4 of the SNS12A board

[6] Connector Pin Numbers



[7] Checking Sensor Operation

◆ ***CHECK*** ◆

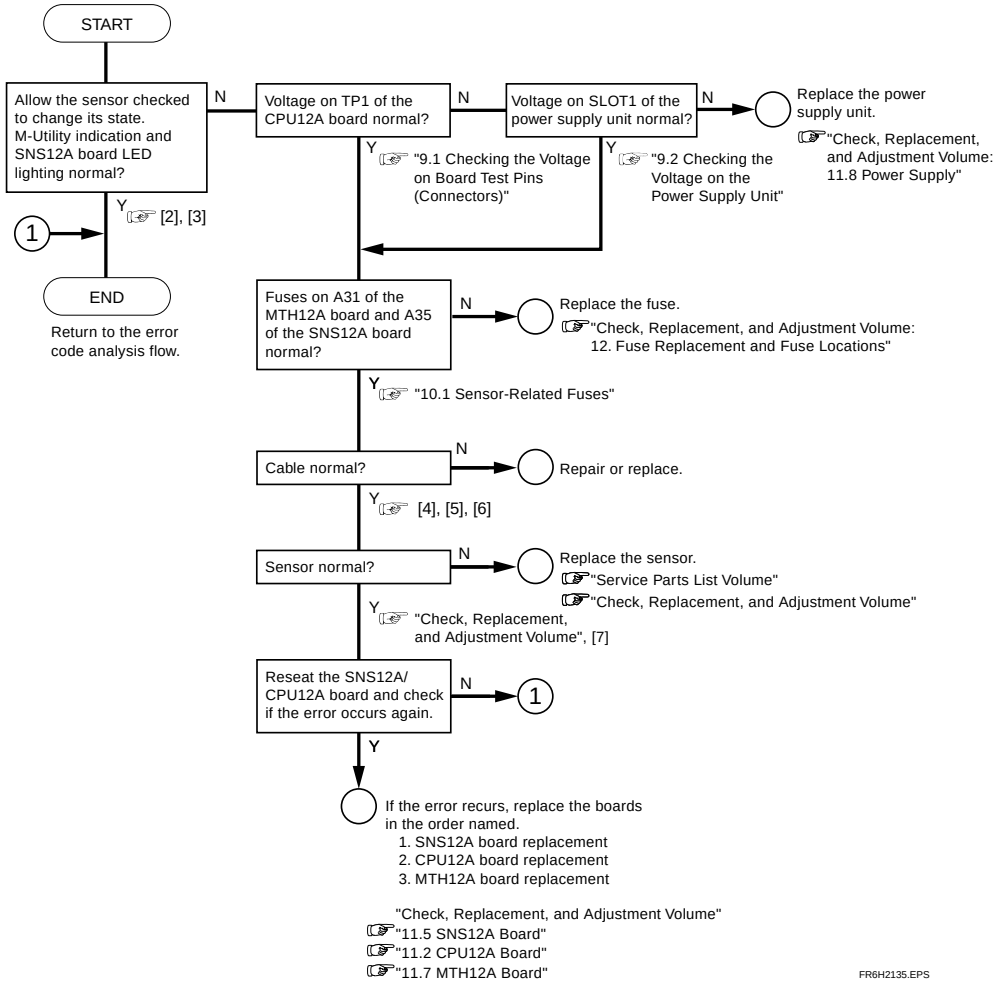
Make sure that the indication given by the sensor monitoring in M-Utility is consistent with the LED indication.

[6][ENT] → [3][ENT] → [3][ENT]

Allow the sensor to transition to OPEN/CLOSE and verify that the sensor status on the CL screen changes accordingly.

11.2 Checking SC1, SC2, SC3, and SC4

[1] Analysis Flow


START
Allow the sensor checked to change its state. M-Utility indication and SNS12A board LED lighting normal?
N
Voltage on TP1 of the CPU12A board normal?
N
Voltage on SLOT1 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on A31 of the MTH12A board and A35 of the SNS12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞ "10.1 Sensor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5], [6]
Sensor normal?
N
Replace the sensor.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y
☞ "Check, Replacement, and Adjustment Volume", [7]
Reseat the SNS12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. SNS12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2135.EPS

[2] Checking by Use of M-Utility

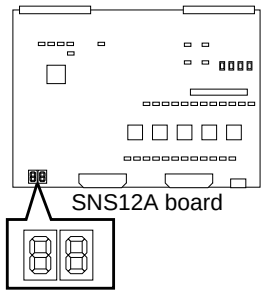
◆ ***CHECK*** ◆

Make sure that the indication given by the sensor monitoring in M-Utility is consistent with the LED indication.

[6][ENT] → [3][ENT] → [3][ENT]

Allow the sensor to transition to OPEN/CLOSE and verify that the sensor status on the CL screen changes accordingly.

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	SC1	Monitors the side-positioning HP detection.	CLOSE	OPEN
	SC2	Monitors the grip release HP detection.	CLOSE	OPEN
	SC3	Monitors the side-positioning IP detection.	CLOSE	OPEN
	SC4	Monitors the erasure positioning IP detection.	CLOSE	OPEN

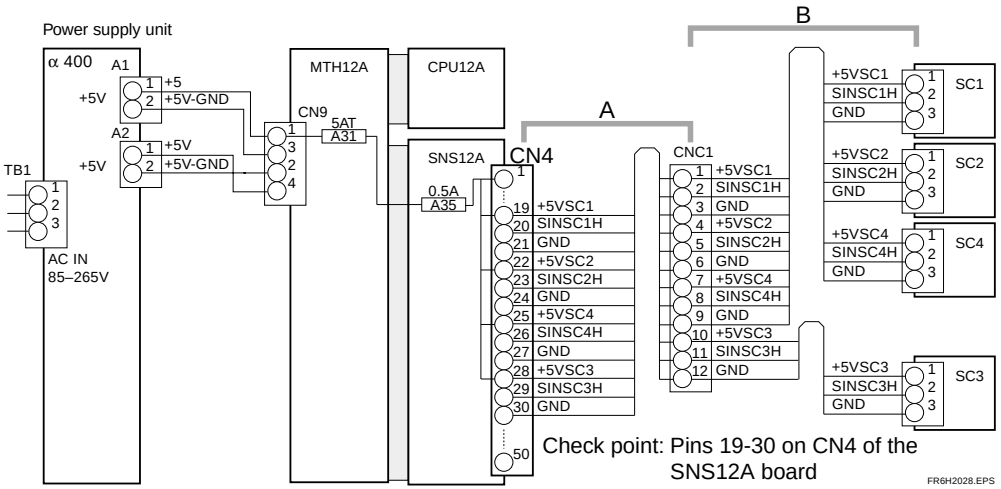
TR6H2006.EPS

[4] Checking the Cable

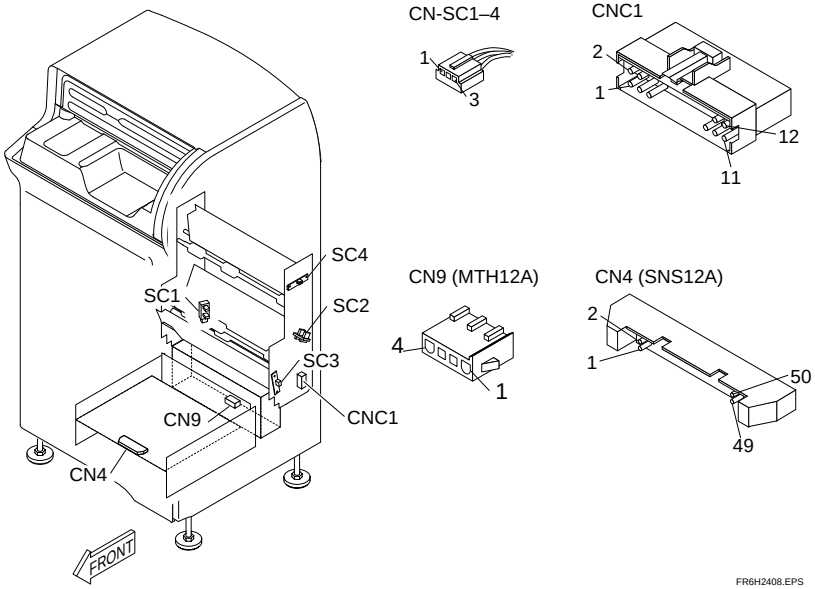
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

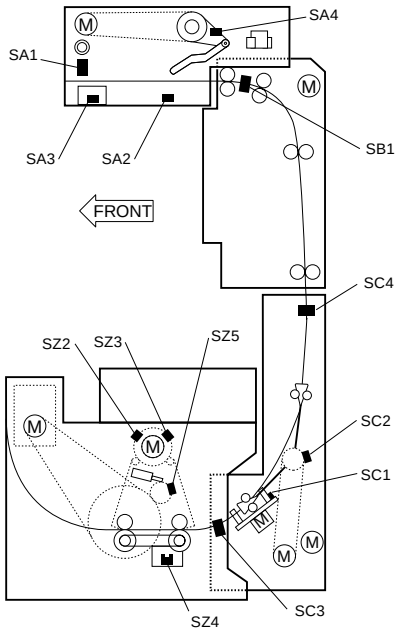
[5] Block Diagram



[6] Connector Pin Numbers



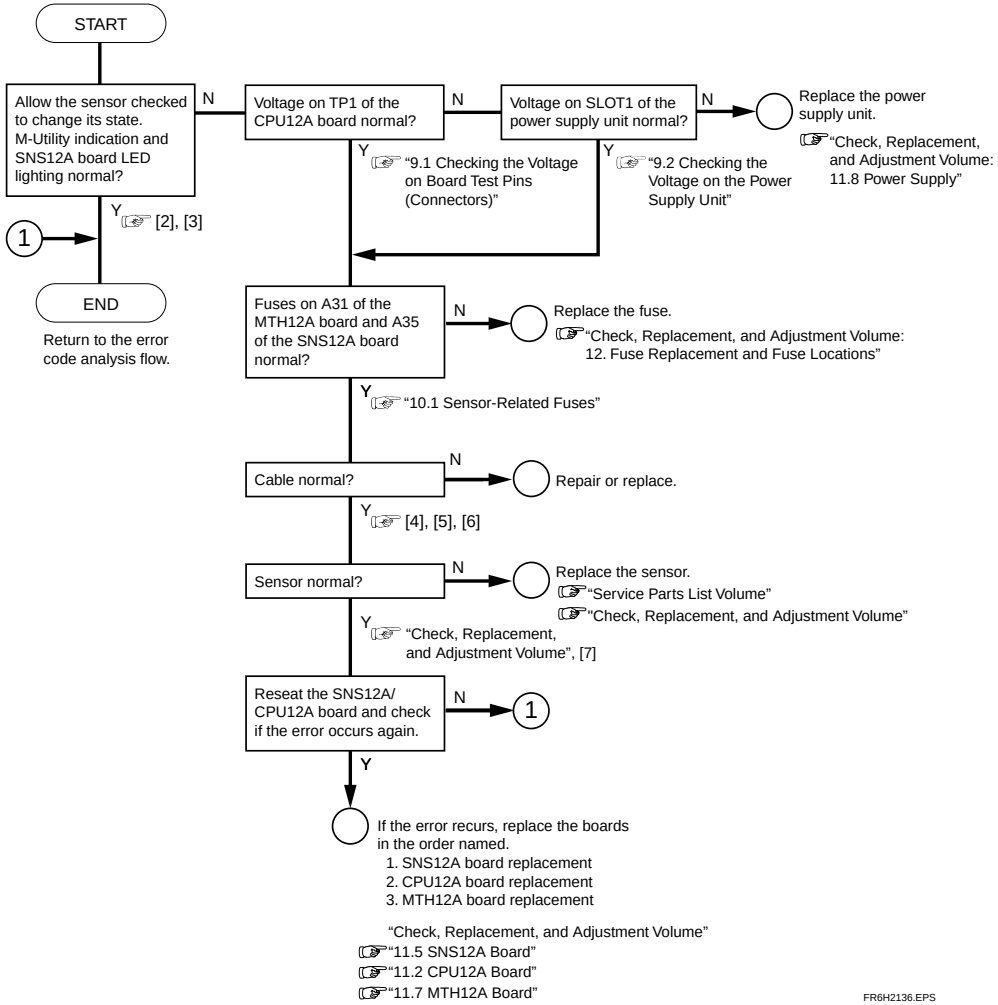
[7] Checking Sensor Operation



Symbol	Name	Type
SA1	Cassette ejection sensor	PI (5mm)
SA2	Cassette IN sensor	PI (5mm)
SA3	Hold sensor	PI (5mm)
SA4	Suction cup HP sensor	PI (5mm)
SB1	IP sensor	PI (19mm)
SC1	Side-positioning HP sensor	PI (5mm)
SC2	Grip HP sensor	PI (5mm)
SC3	IP sensor	PI (19mm)
SC4	IP sensor	PI (19mm)
SZ2	Driving-side grip operation sensor	PI (5mm)
SZ3	Driven-side grip operation sensor	PI (5mm)
SZ4	IP stopper HP sensor	PI (5mm)
SZ5	Dust removal HP sensor	PI (5mm)

11.3 Checking SZ2, SZ3, SZ4, and SZ5

[1] Analysis Flow


START
Allow the sensor checked to change its state. M-Utility indication and SNS12A board LED lighting normal?
N
Voltage on TP1 of the CPU12A board normal?
N
Voltage on SLOT1 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on A31 of the MTH12A board and A35 of the SNS12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞ "10.1 Sensor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5], [6]
Sensor normal?
N
Replace the sensor.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y
☞ "Check, Replacement, and Adjustment Volume", [7]
Reseat the SNS12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. SNS12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.5 SNS12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

FR6H2136.EPS

[2] Checking by Use of M-Utility

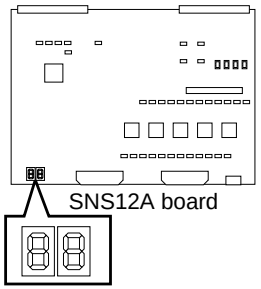
◆ ***CHECK*** ◆

Make sure that the indication given by the sensor monitoring in M-Utility is consistent with the LED indication.

[6][ENT] → [3][ENT] → [3][ENT]

Allow the sensor to transition to OPEN/CLOSE and verify that the sensor status on the CL screen changes accordingly.

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	SZ2	Monitors the driving-side grip release HP detection.	CLOSE	OPEN
	SZ3	Monitors the driven-side grip release HP detection.	CLOSE	OPEN
	SZ4	Monitors the IP stopper HP detection.	CLOSE	OPEN
	SZ5	Monitors the dust removal HP detection.	CLOSE	OPEN

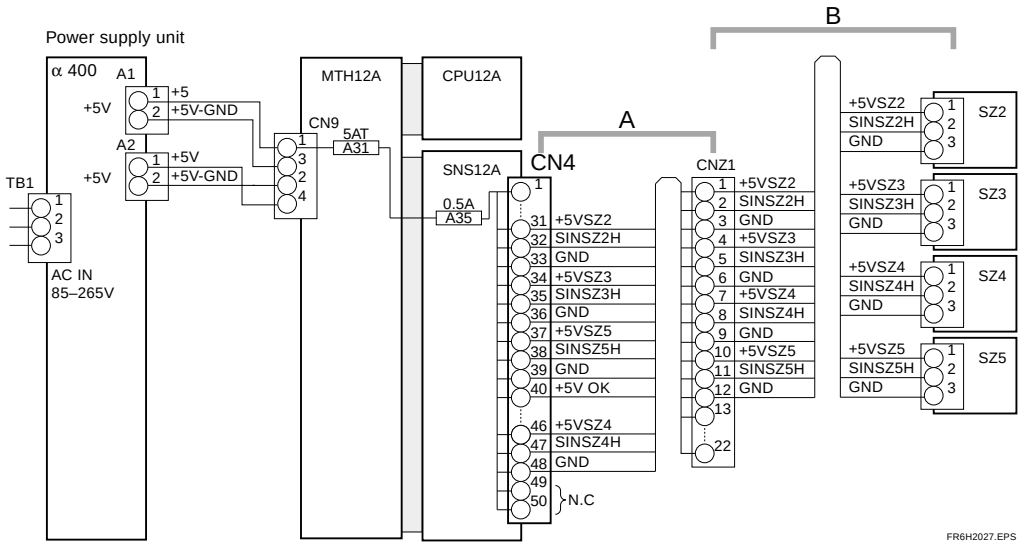
TR6H2005.EPS

[4] Checking the Cable

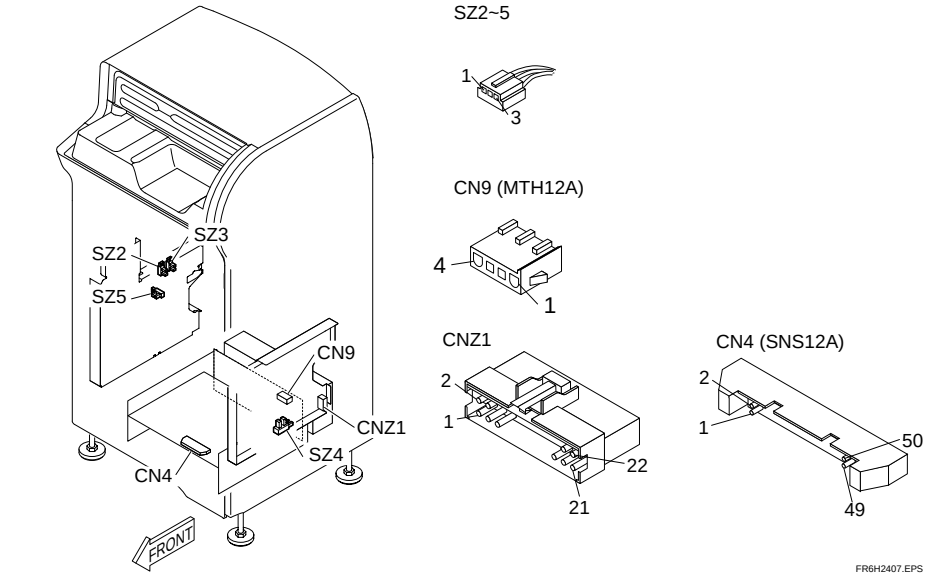
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

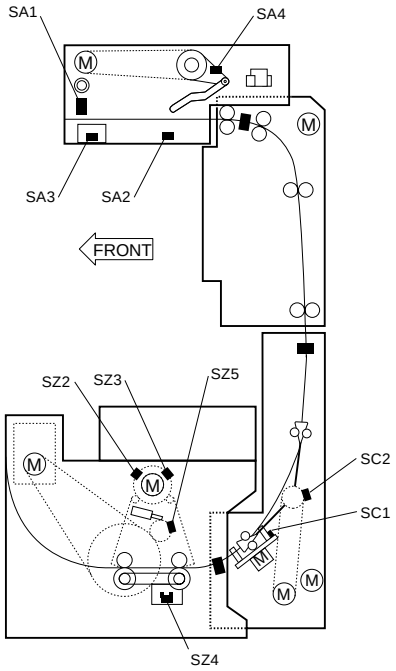
[5] Block Diagram



[6] Connector Pin Numbers



[7] Checking Sensor Operation

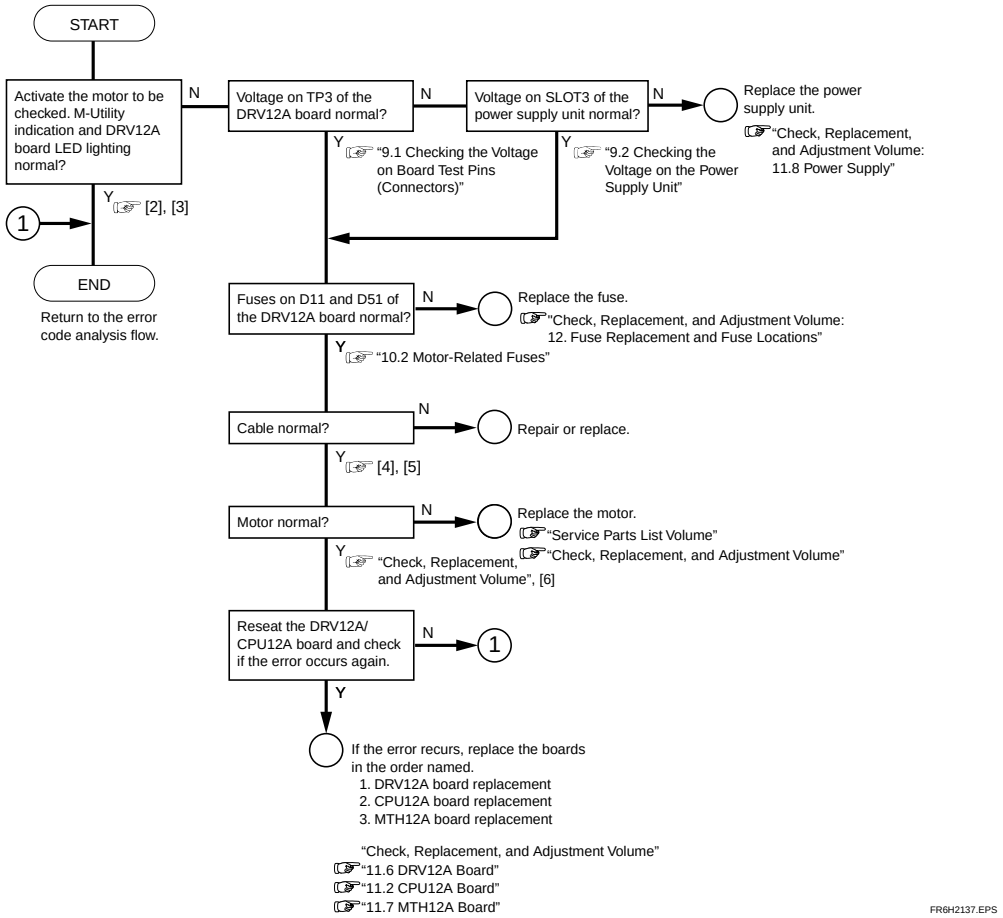


Symbol	Name	Type
SA1	Cassette ejection sensor	PI (5mm)
SA2	Cassette IN sensor	PI (5mm)
SA3	Hold sensor	PI (5mm)
SA4	Suction cup HP sensor	PI (5mm)
SC1	Side-positioning HP sensor	PI (5mm)
SC2	Grip HP sensor	PI (5mm)
SZ2	Driving-side grip operation sensor	PI (5mm)
SZ3	Driven-side grip operation sensor	PI (5mm)
SZ4	IP stopper HP sensor	PI (5mm)
SZ5	Dust removal HP sensor	PI (5mm)

12. Checking the Motors

12.1 Checking MA1 and MB1

[1] Analysis Flow


START
Activate the motor to be checked. M-Utility indication and DRV12A board LED lighting normal?
N
Voltage on TP3 of the DRV12A board normal?
N
Voltage on SLOT3 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on D11 and D51 of the DRV12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞ "10.2 Motor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5]
Motor normal?
N
Replace the motor.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y
☞ "Check, Replacement, and Adjustment Volume", [6]
Reseat the DRV12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. DRV12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2137.EPS

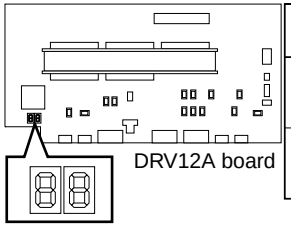
[2] Checking by Use of M-Utility

◆ ***CHECK*** ◆

Make sure that M-Utility diagnostics indication and operating sound are generated and a consistent LED indication is given.

[6] [ENT] → [1] [ENT] → [1] [ENT]

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	MA1	Monitors the suction cup driving motor control signal.	Drive	Stop
	MB1	Monitors the IP transport motor control signal.	Drive	Stop

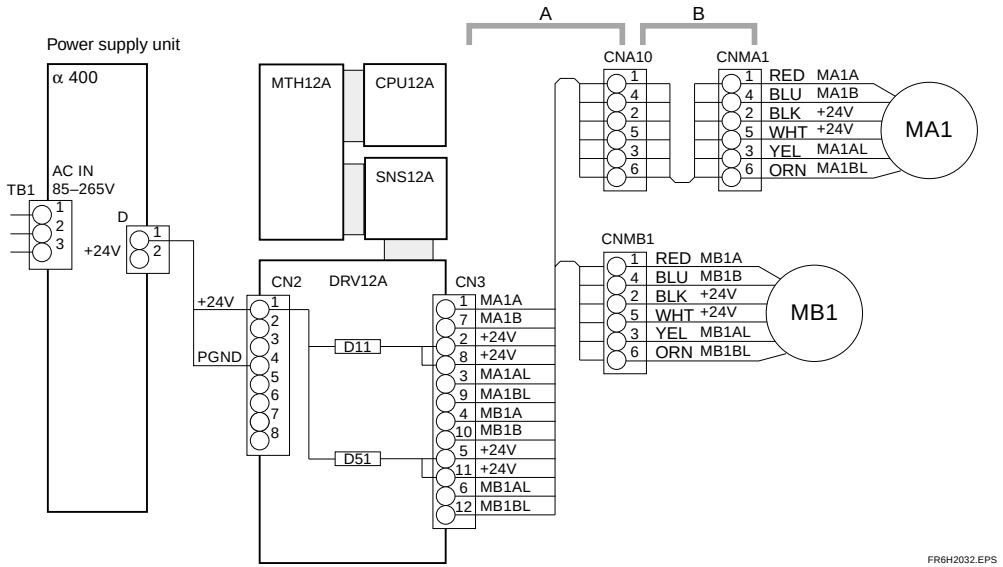
TR6H2010.EPS

[4] Checking the Cable

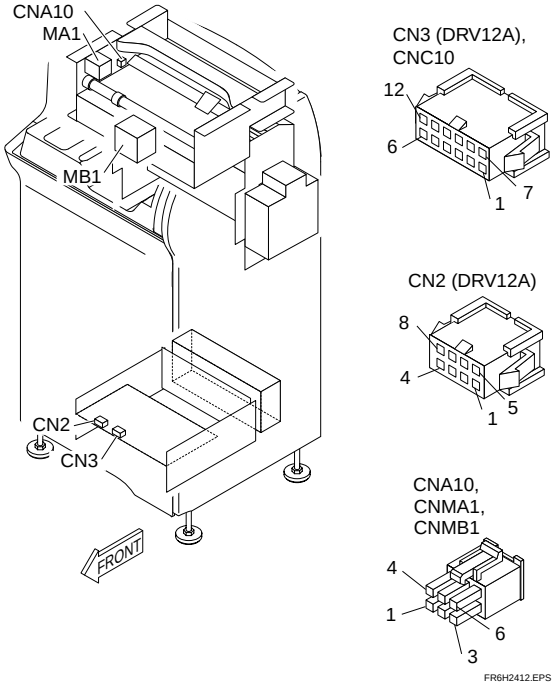
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram

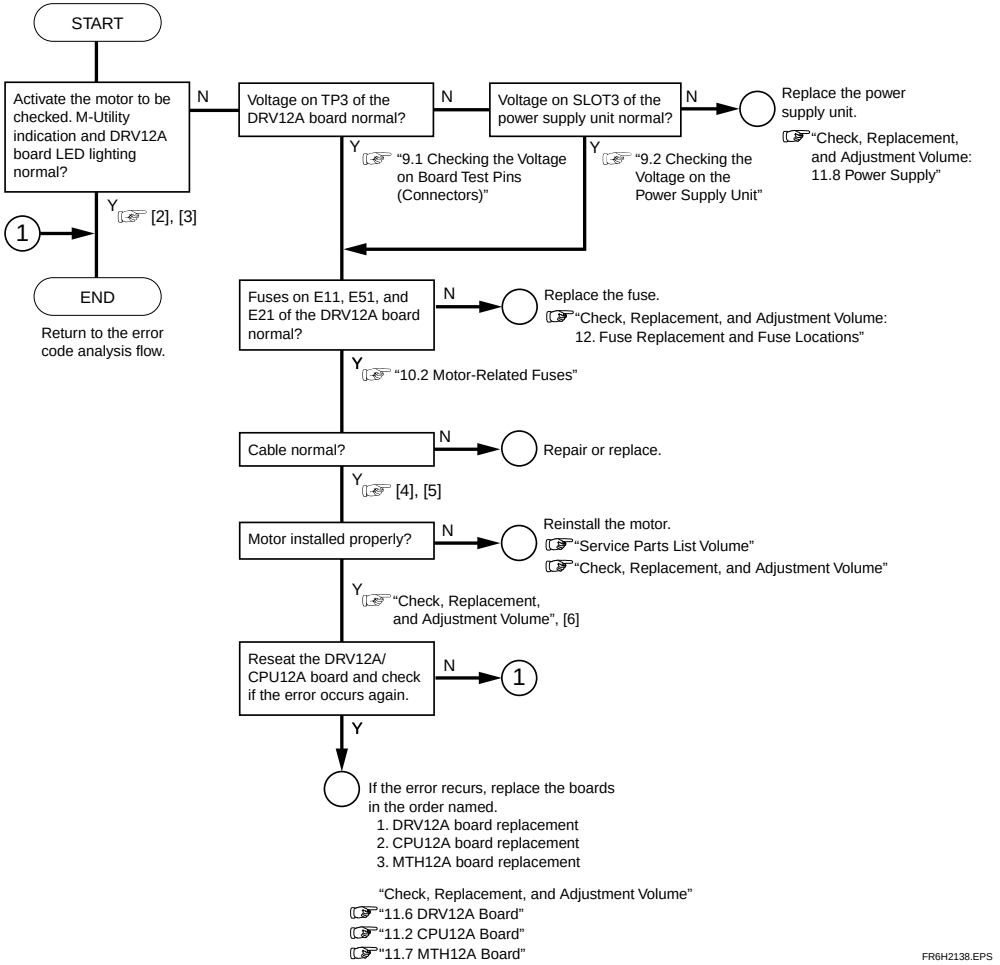


[6] Checking Motor Operation



12.2 Checking MC1, MC2, and MC3

[1] Analysis Flow


START
Activate the motor to be checked. M-Utility indication and DRV12A board LED lighting normal?
N
Voltage on TP3 of the DRV12A board normal?
N
Voltage on SLOT3 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on E11, E51, and E21 of the DRV12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞ "10.2 Motor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5]
Motor installed properly?
N
Reinstall the motor.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y
☞"Check, Replacement, and Adjustment Volume", [6]
Reseat the DRV12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. DRV12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

FR6H2138.EPS

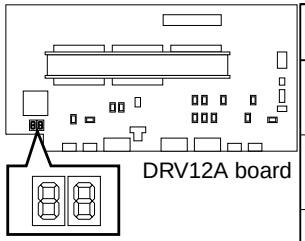
[2] Checking by Use of M-Utility

◆ ***CHECK*** ◆

Make sure that M-Utility diagnostics indication and operating sound are generated and a consistent LED indication is given.

[6] [ENT] → [1] [ENT] → [1] [ENT]

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	MC1	Monitors the side-positioning motor control signal.	Drive	Stop
	MC2	Monitors the grip release motor control signal.	Drive	Stop
	MC3	Monitors the IP transport motor control signal.	Drive	Stop

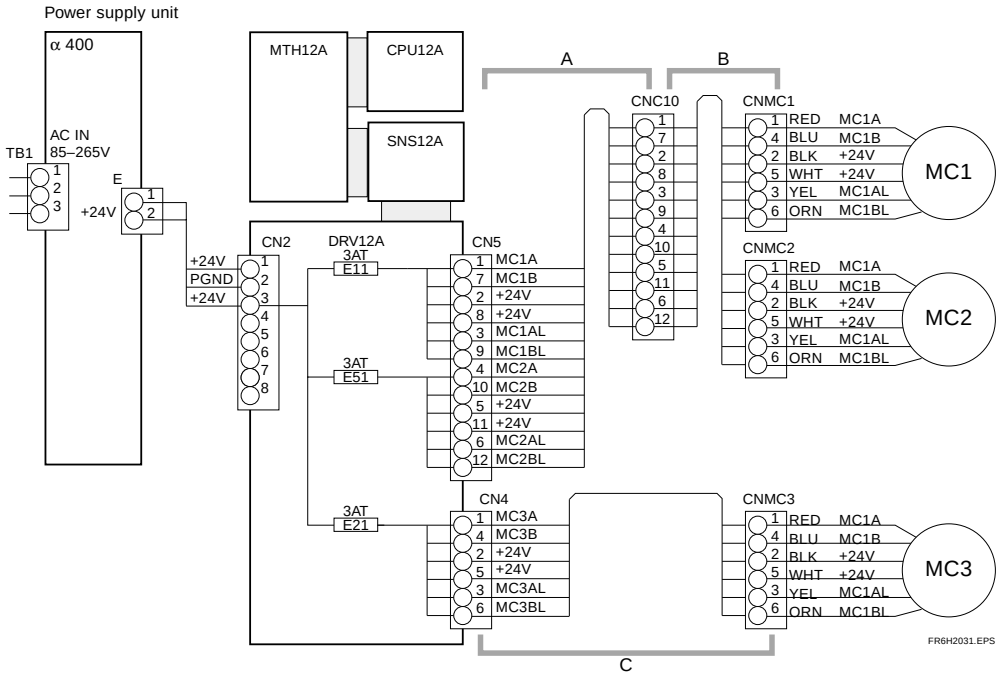
TR6H2009.EPS

[4] Checking the Cable

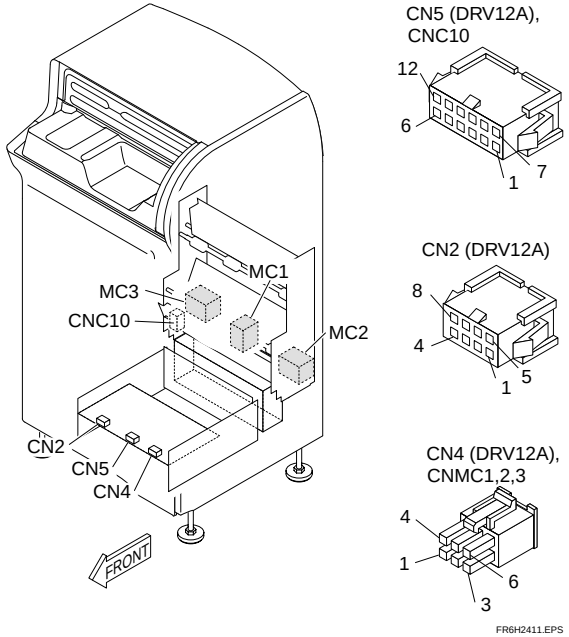
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram

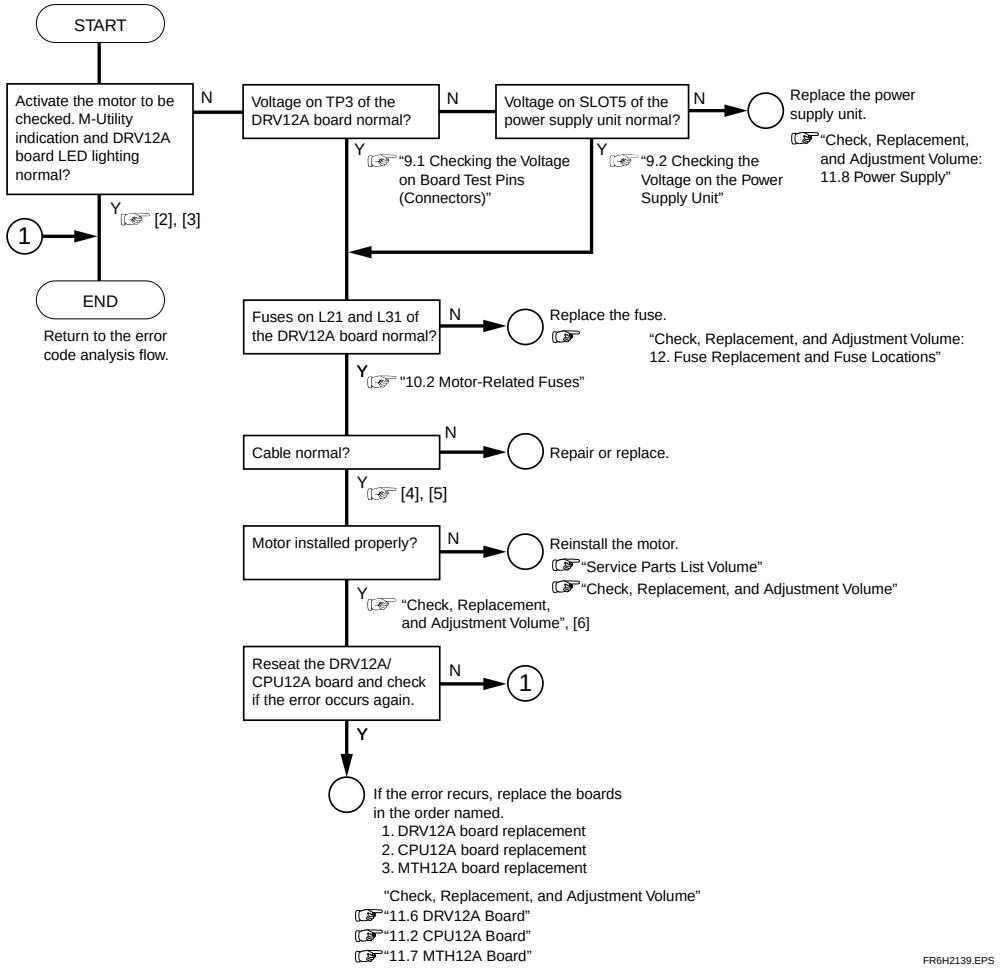


[6] Checking Motor Operation



12.3 Checking MZ2 and MZ3

[1] Analysis Flow


START
Activate the motor to be checked. M-Utility indication and DRV12A board LED lighting normal?
N
Voltage on TP3 of the DRV12A board normal?
N
Voltage on SLOT5 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y ☞"9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y ☞"9.2 Checking the Voltage on the Power Supply Unit"
Y ☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on L21 and L31 of the DRV12A board normal?
N
Replace the fuse. ☞
"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y ☞"10.2 Motor-Related Fuses"
Cable normal?
N
Repair or replace.
Y ☞ [4], [5]
Motor installed properly?
N
Reinstall the motor.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y ☞ "Check, Replacement, and Adjustment Volume", [6]
Reseat the DRV12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. DRV12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

FR6H2139.EPS

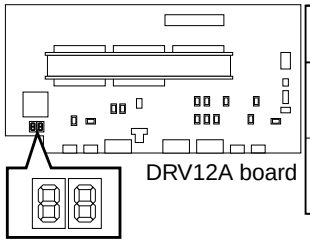
[2] Checking by Use of M-Utility

◆ ***CHECK*** ◆

Make sure that M-Utility diagnostics indication, motor operation, and LED indication are consistent.

[6] [ENT] → [1] [ENT] → [1] [ENT]

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	MZ2	Monitors the grip release motor drive signal.	Drive	Stop
	MZ3	Monitors dust removal motor drive signal.	Drive	Stop

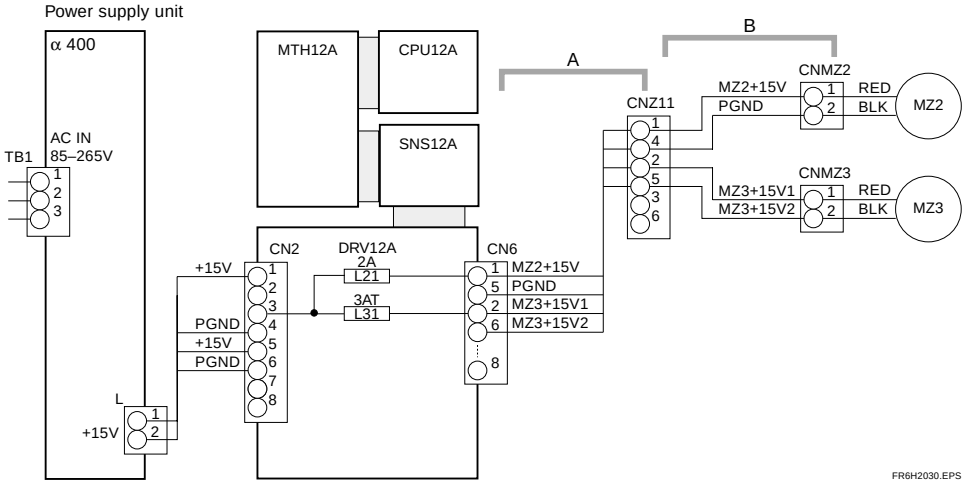
TR6H2008.EPS

[4] Checking the Cable

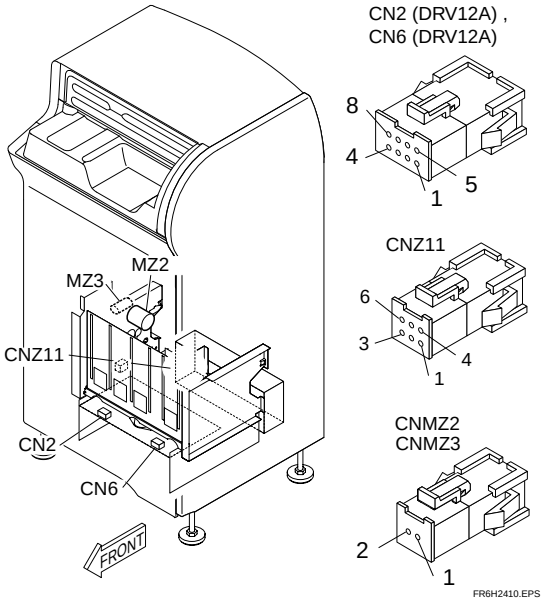
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram

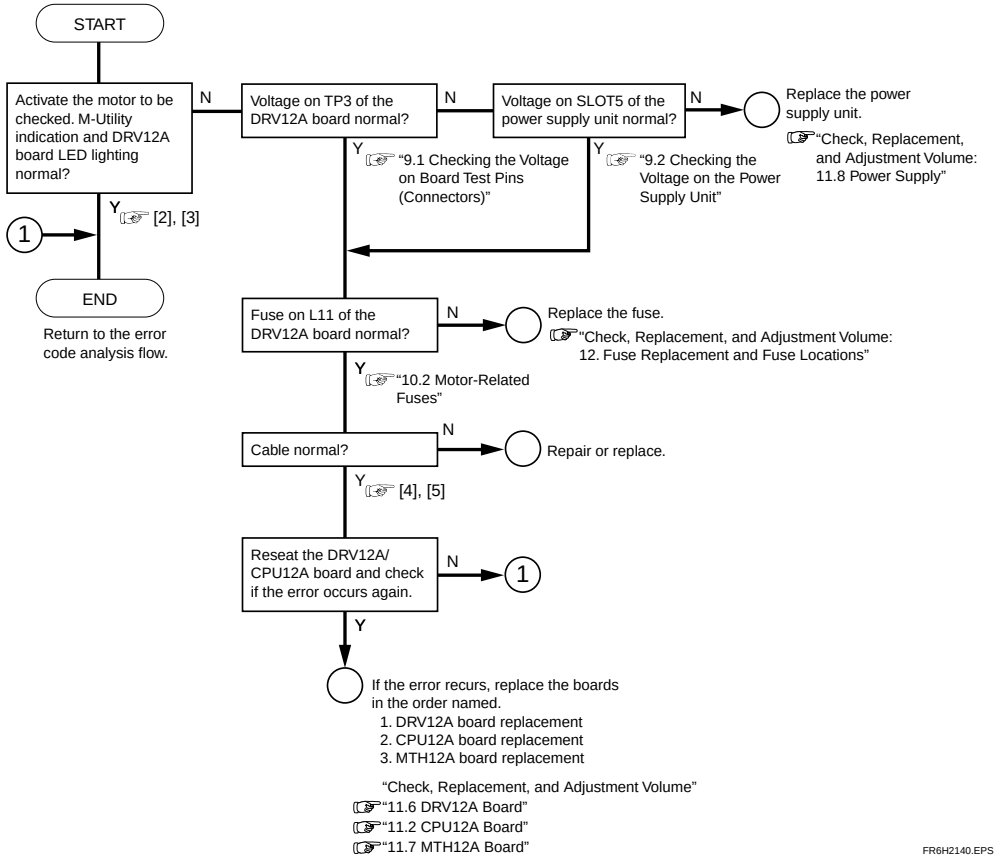


[6] Connector Locations



12.4 Checking the FFM12A Board

[1] Analysis Flow


START
Activate the motor to be checked. M-Utility indication and DRV12A board LED lighting normal?
N
Voltage on TP3 of the DRV12A board normal?
N
Voltage on SLOT5 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuse on L11 of the DRV12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞"10.2 Motor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5]
Reseat the DRV12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. DRV12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"
FR6H2140.EPS

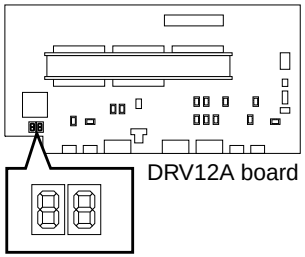
[2] Checking by Use of M-Utility

◆ *CHECK* ◆

Make sure that the indication given by the sensor monitoring in M-Utility is consistent with the LED indication.

[6] [ENT] → [1] [ENT] → [1] [ENT]

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	FFM	Monitors the FFM motor drive signal.	Drive	Stop

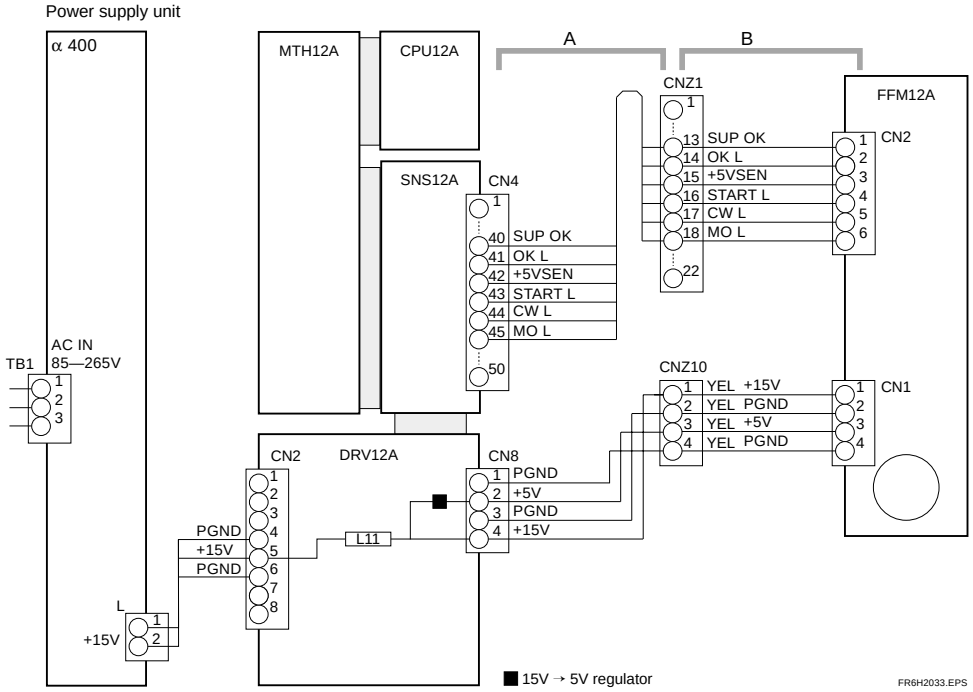
TR6H2022.EPS

[4] Checking the Cable

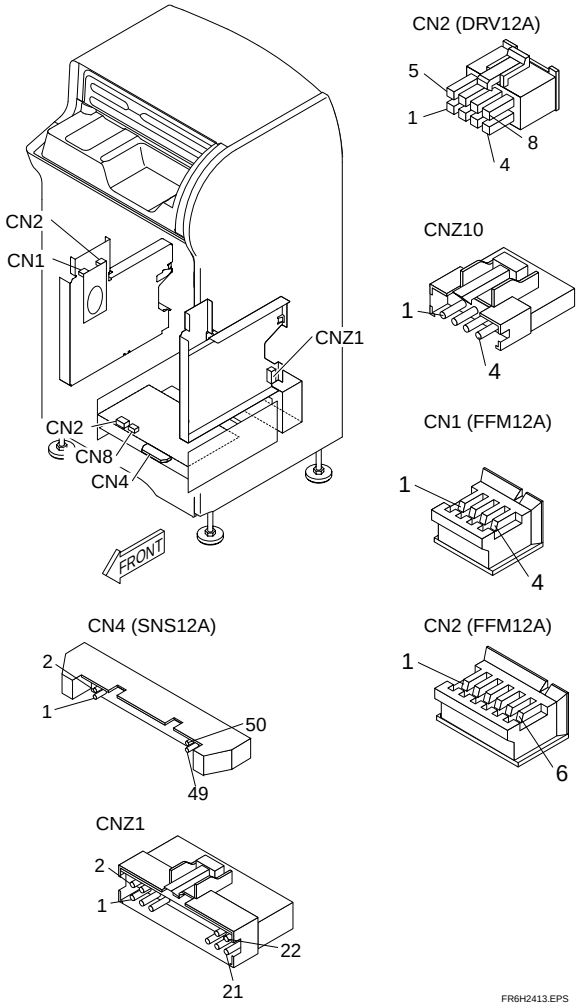
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram

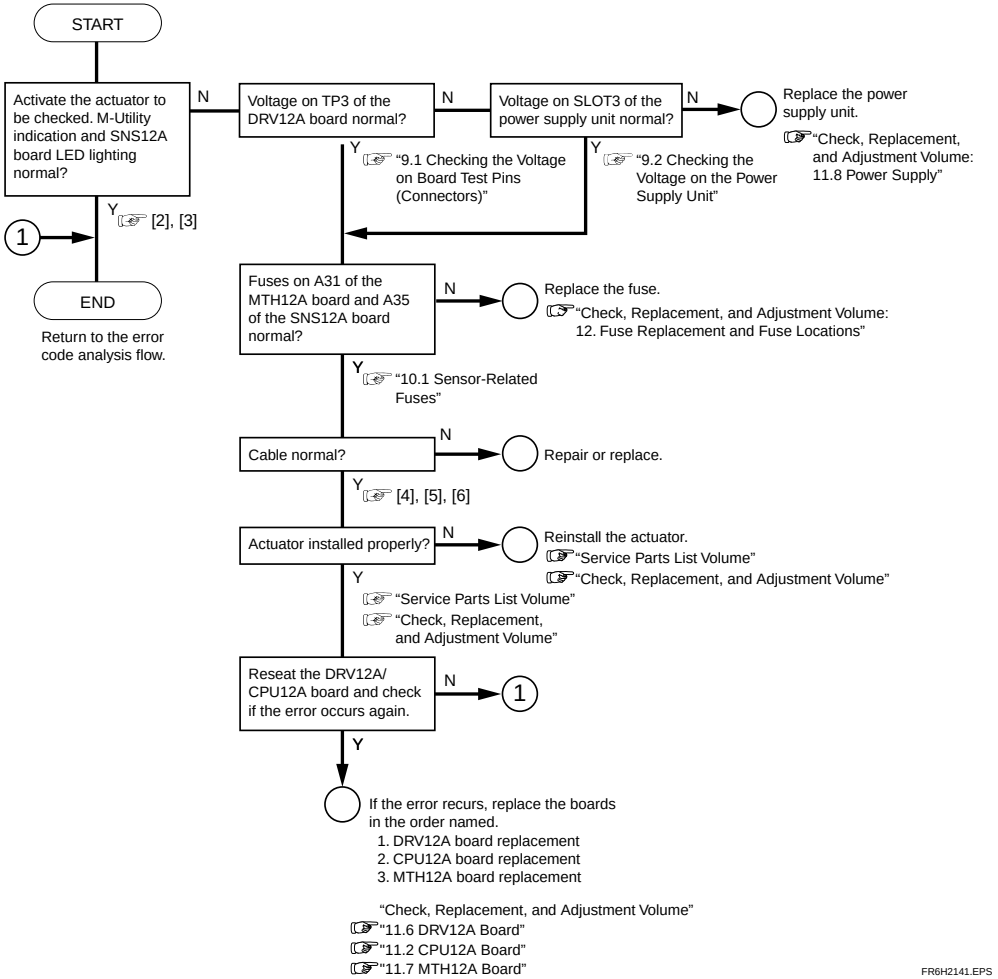


[6] Connector Pin Numbers



13. Checking the Actuators

[1] Analysis Flow


START
Activate the actuator to be checked. M-Utility indication and SNS12A board LED lighting normal?
N
Voltage on TP3 of the DRV12A board normal?
N
Voltage on SLOT3 of the power supply unit normal?
N
Replace the power supply unit.
☞"Check, Replacement, and Adjustment Volume: 11.8 Power Supply"
Y
☞ "9.1 Checking the Voltage on Board Test Pins (Connectors)"
Y
☞ "9.2 Checking the Voltage on the Power Supply Unit"
Y
☞ [2], [3]
1
END
Return to the error code analysis flow.
Fuses on A31 of the MTH12A board and A35 of the SNS12A board normal?
N
Replace the fuse.
☞"Check, Replacement, and Adjustment Volume: 12. Fuse Replacement and Fuse Locations"
Y
☞ "10.1 Sensor-Related Fuses"
Cable normal?
N
Repair or replace.
Y
☞ [4], [5], [6]
Actuator installed properly?
N
Reinstall the actuator.
☞"Service Parts List Volume"
☞"Check, Replacement, and Adjustment Volume"
Y
☞ "Service Parts List Volume"
☞ "Check, Replacement, and Adjustment Volume"
Reseat the DRV12A/ CPU12A board and check if the error occurs again.
N
1
Y
If the error recurs, replace the boards in the order named.
1. DRV12A board replacement
2. CPU12A board replacement
3. MTH12A board replacement
"Check, Replacement, and Adjustment Volume"
☞"11.6 DRV12A Board"
☞"11.2 CPU12A Board"
☞"11.7 MTH12A Board"

FR6H2141.EPS

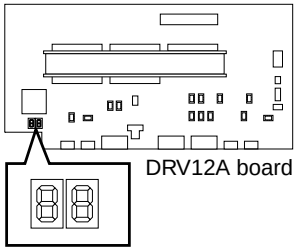
[2] Checking the Light-Collecting Unit in M-Utility

◆ ***CHECK*** ◆

Make sure that the operation in M-Utility is consistent with the LED indication.

[6] [ENT] → [2] [ENT] → [1] [ENT]

[3] LED Lighting



Location	I/O No.	Monitoring description	LED ON	OFF
	SolA1	Monitors the cassette hold solenoid control signal.	Drive	Stop
	PA1	Monitors the suction pump drive signal.	Drive	Stop
	SVA1	Monitors the IP leak valve drive signal.	Drive	Stop
	CLA1	Monitors the clutch drive signal.	Drive	Stop
	SolZ1	Monitors the stopper driving solenoid control signal.	Drive	Stop

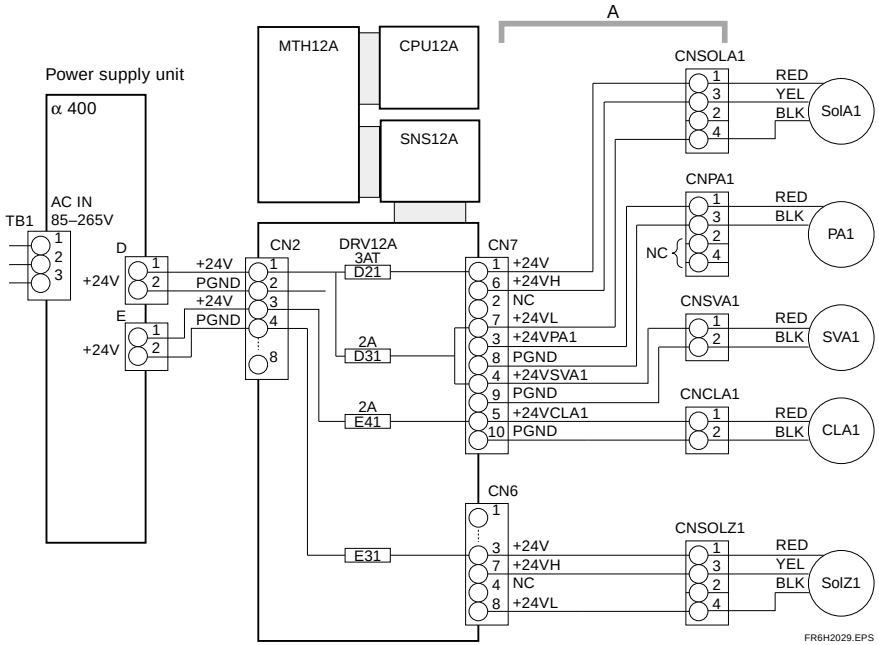
TR6H2007.EPS

[4] Checking the Cable

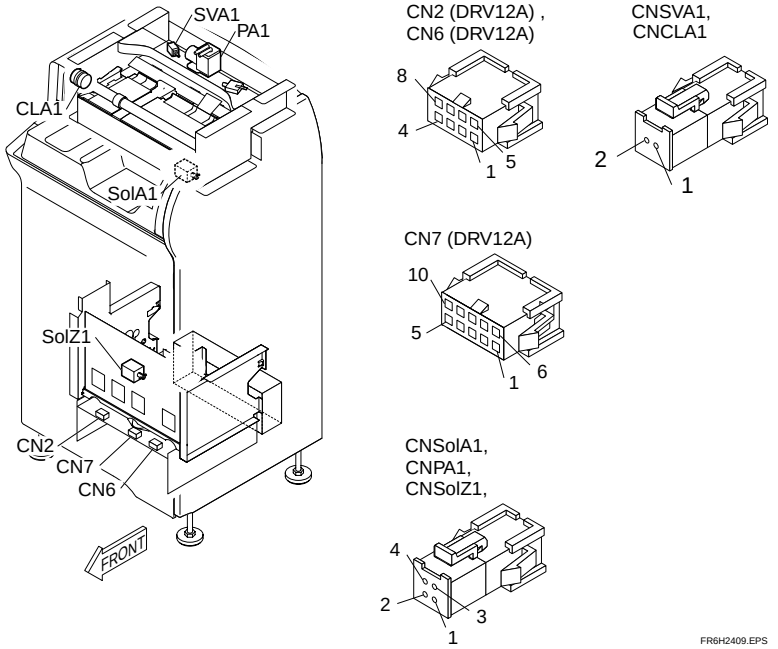
Check the following between the portions <A and B> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[5] Block Diagram



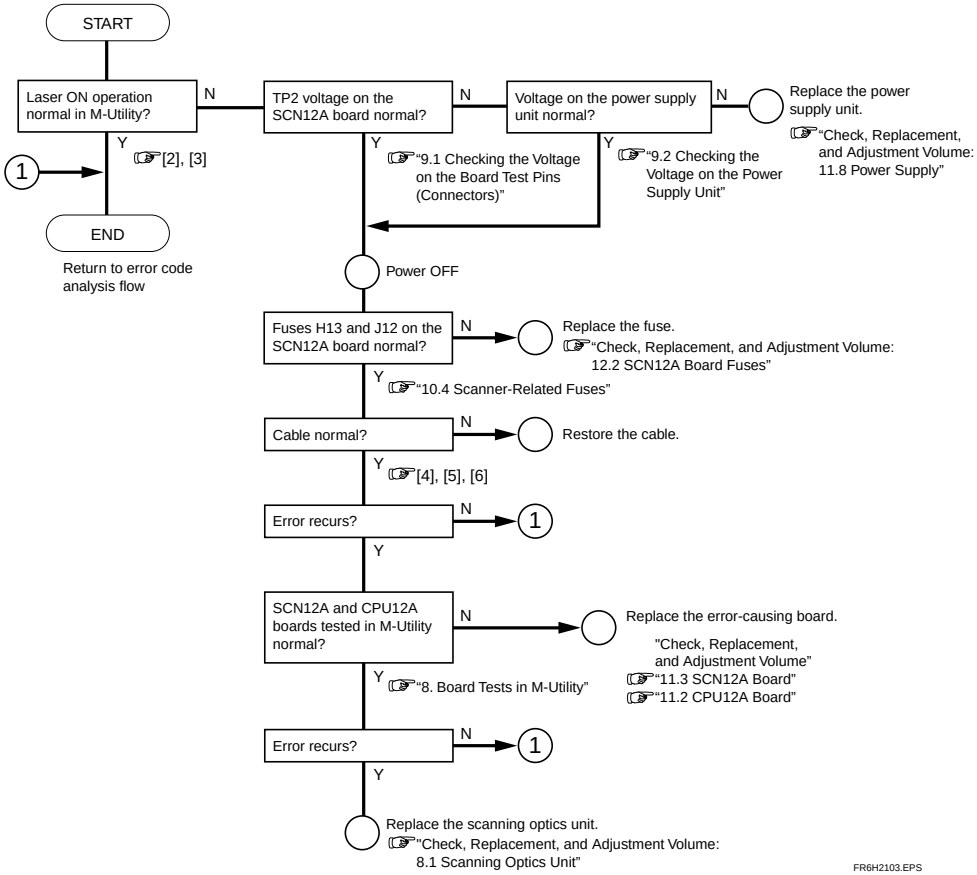
[6] Connector Pin Numbers



14. Checking the Scanner I/O

14.1 Checking the Laser (LDD)

[1] Analysis Flow



[2] Checking Laser ON in M-Utility

◆ ***CHECK*** ◆

Check the diagnostics and LED indications in M-Utility.

[5] [ENT] → [3] [ENT] → [2] [ENT]

- RESULT: OK → Normal
- RESULT: XXXXX → Error

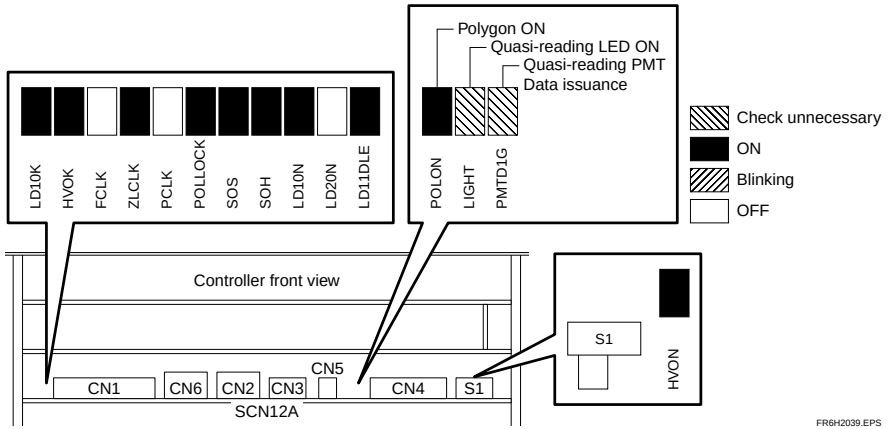
[3] LED Indications

[GOOD indication]

◆ ***NOTE*** ◆

Because the "HVOK" LED indication varies depending on the position of the HV switch, check the position of the HV switch.

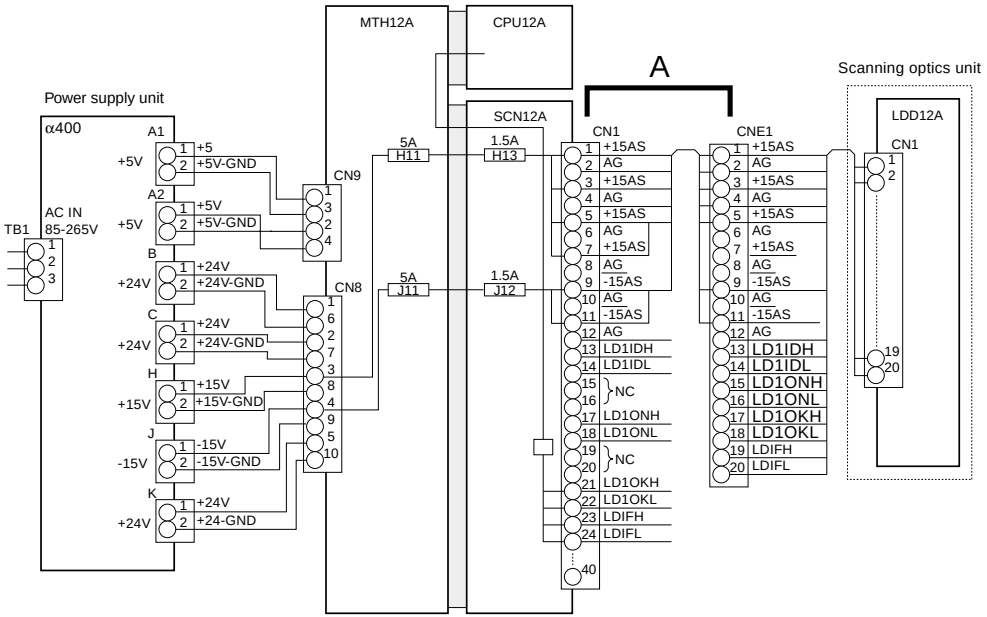
- *High-voltage switch in the ON position → LED ON*
- *High-voltage switch in the OFF position → LED OFF*



[NG indication]

All other than GOOD indication.

[4] Block Diagram



Error detection signal: LD1IDH, LD1IDL, LD1ONH, LD1ONL, LD1OKH, LD1OKL

FR6H2023.EPS

[5] Checking the Cable

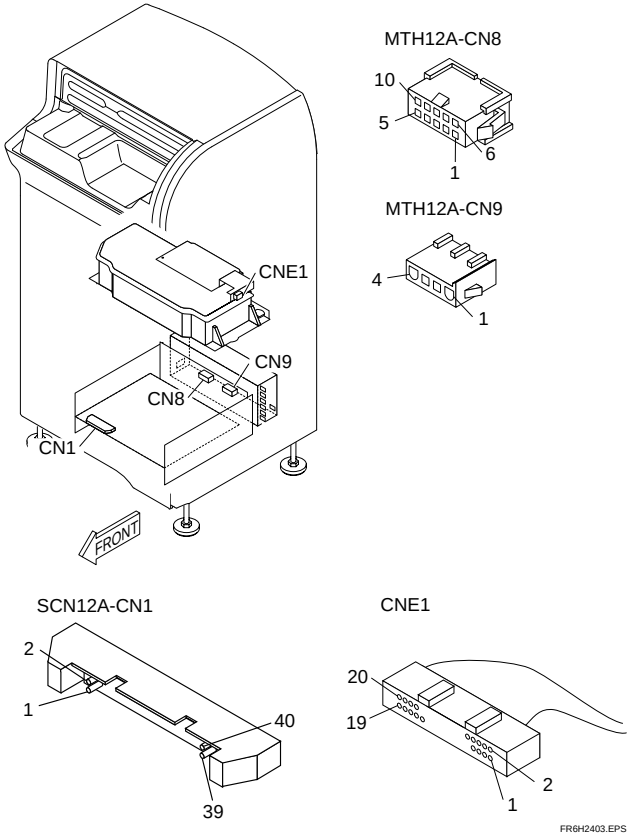
◆ ***NOTE*** ◆

Make sure that the power is OFF.

Check the following between portions <A> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

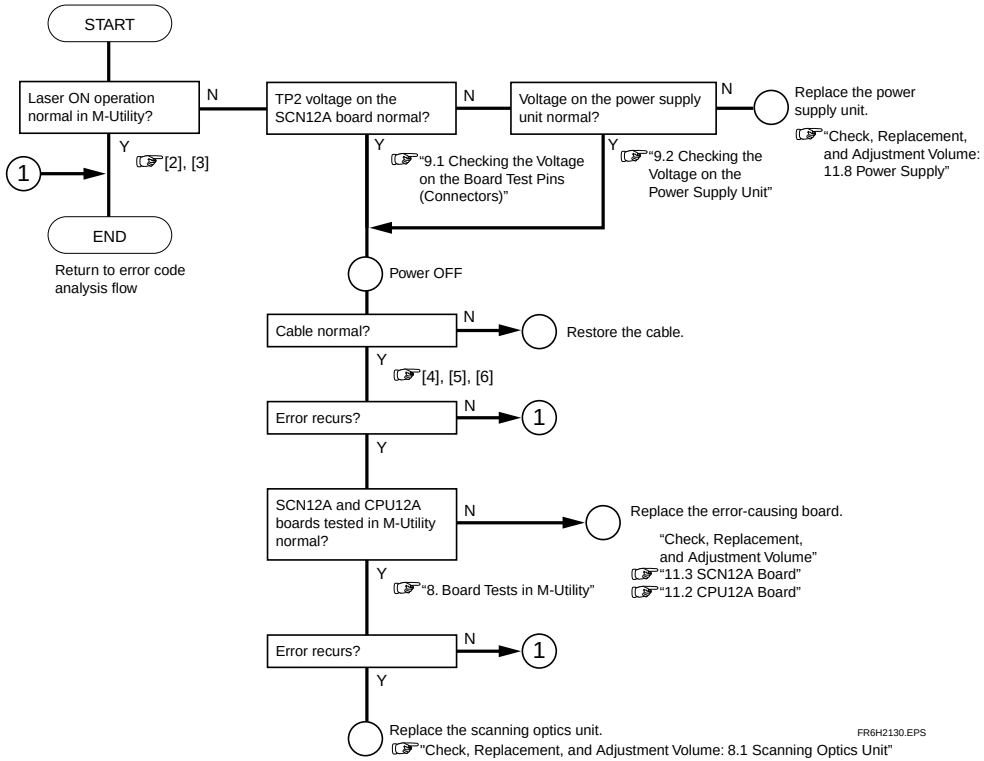
[6] Connector Pin Numbers



FR6H2403.EPS

14.2 Checking the Polygonal Mirror (POL)

[1] Analysis Flow



[2] Checking Laser ON in M-Utility

◆ ***CHECK*** ◆

Check the diagnostics and LED indications in M-Utility.

[5] [ENT] → [3] [ENT] → [2] [ENT]

- RESULT: OK → Normal
- RESULT: XXXXX → Error

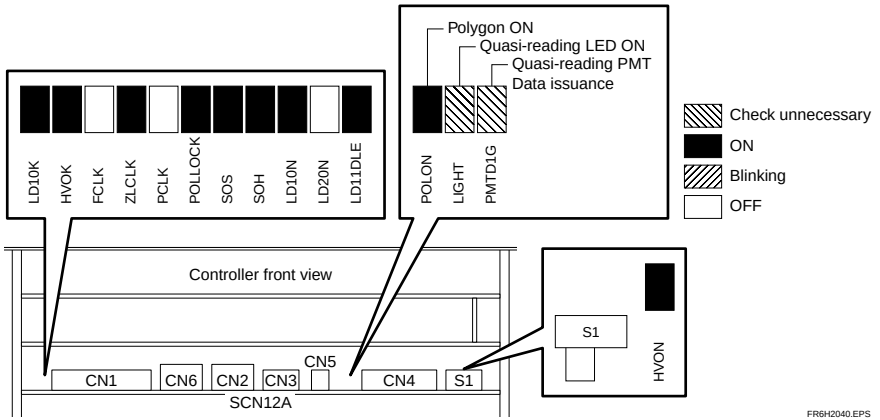
[3] LED Indications

[GOOD indication]

◆ ***NOTE*** ◆

Because the "HVOK" LED indication varies depending on the position of the HV switch, check the position of the HV switch.

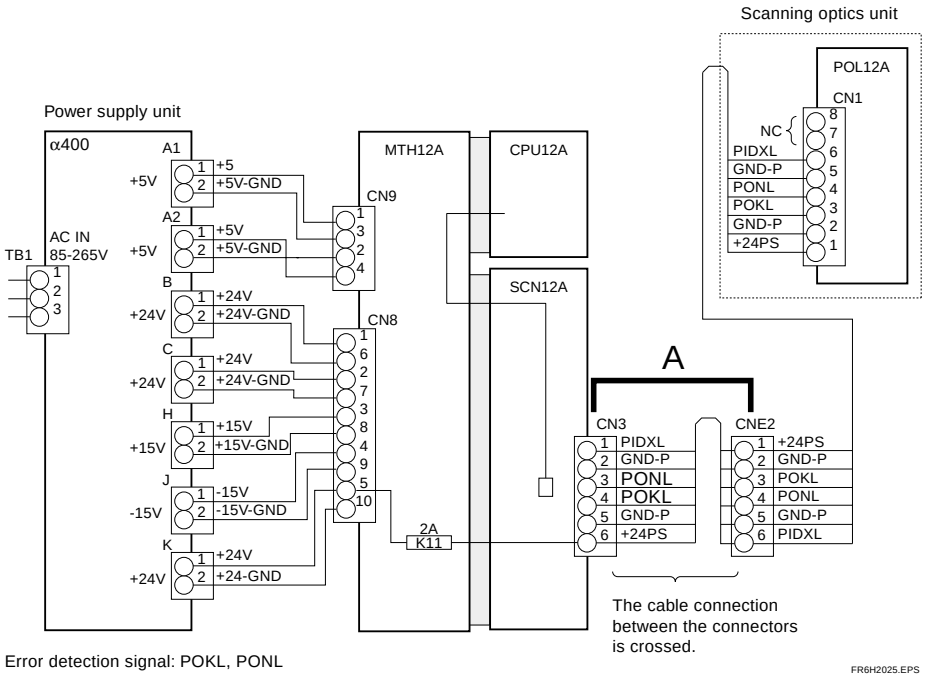
- *High-voltage switch in the ON position → LED ON*
- *High-voltage switch in the OFF position → LED OFF*



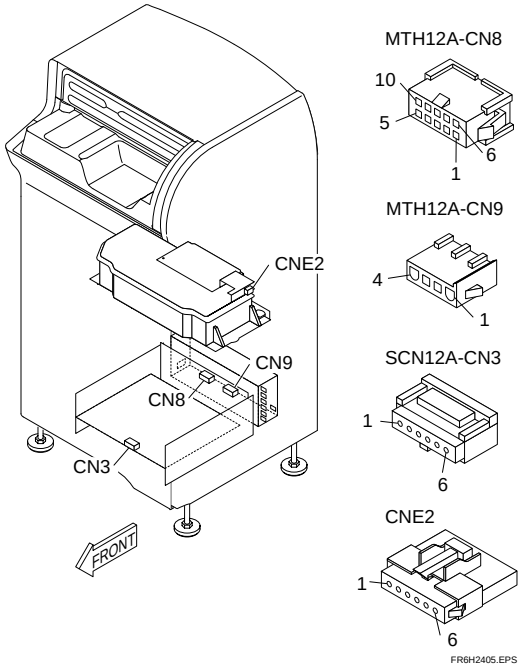
[NG indication]

All other than GOOD indication.

[4] Block Diagram



[6] Connector Pin Numbers



[5] Checking the Cable

◆ ***NOTE*** ◆

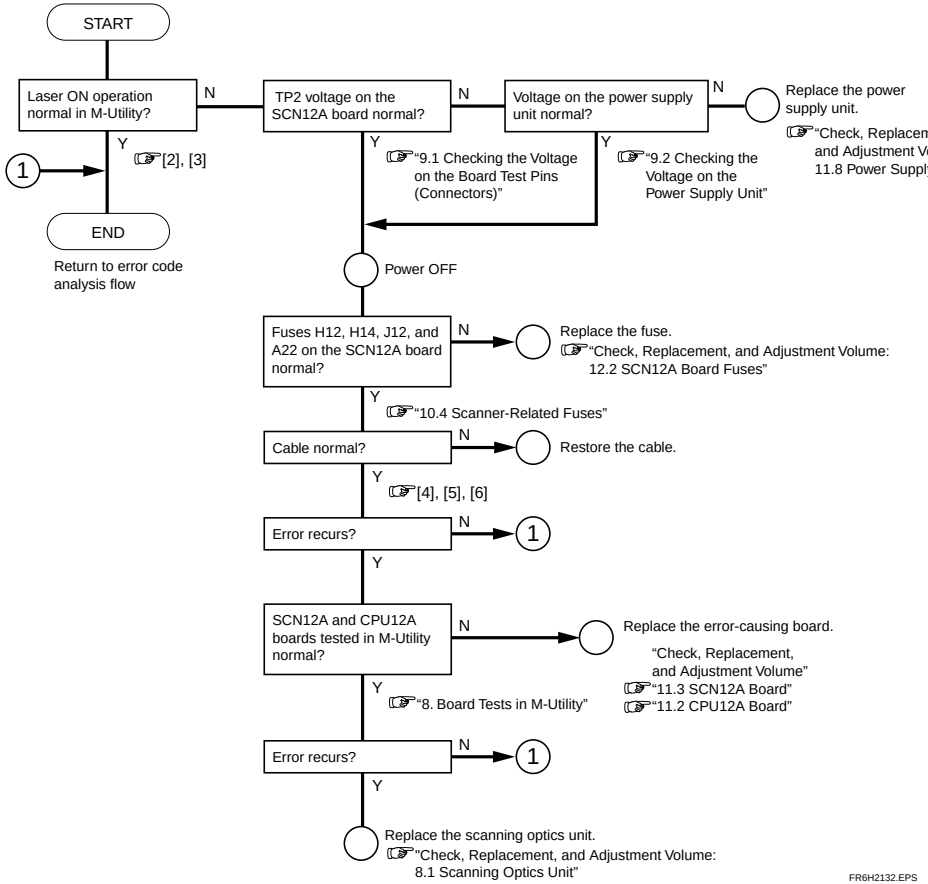
Make sure that the power is OFF.

Check the following between portions <A> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

14.3 Checking the Start-Point Sensor (SYN)

[1] Analysis Flow



[2] Checking Laser ON in M-Utility

◆ ***CHECK*** ◆

Check the diagnostics and LED indications in M-Utility.

[5] [ENT] → [3] [ENT] → [2] [ENT]

- RESULT: OK → Normal
- RESULT: XXXXX → Error

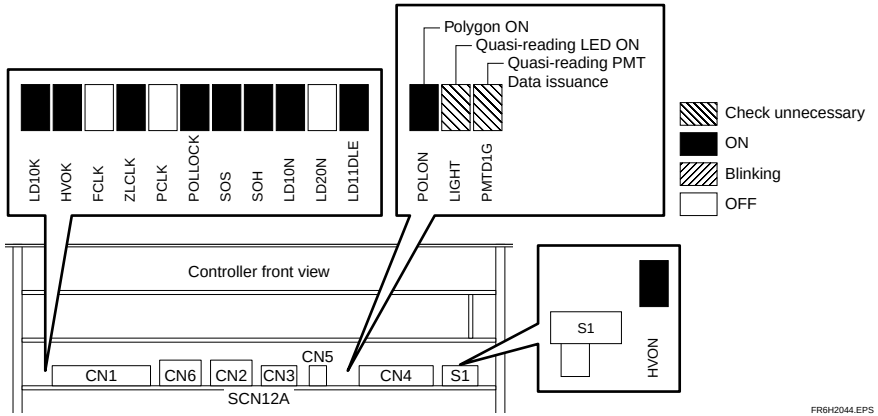
[3] LED Indications

[GOOD indication]

◆ ***NOTE*** ◆

Because the "HVOK" LED indication varies depending on the position of the HV switch, check the position of the HV switch.

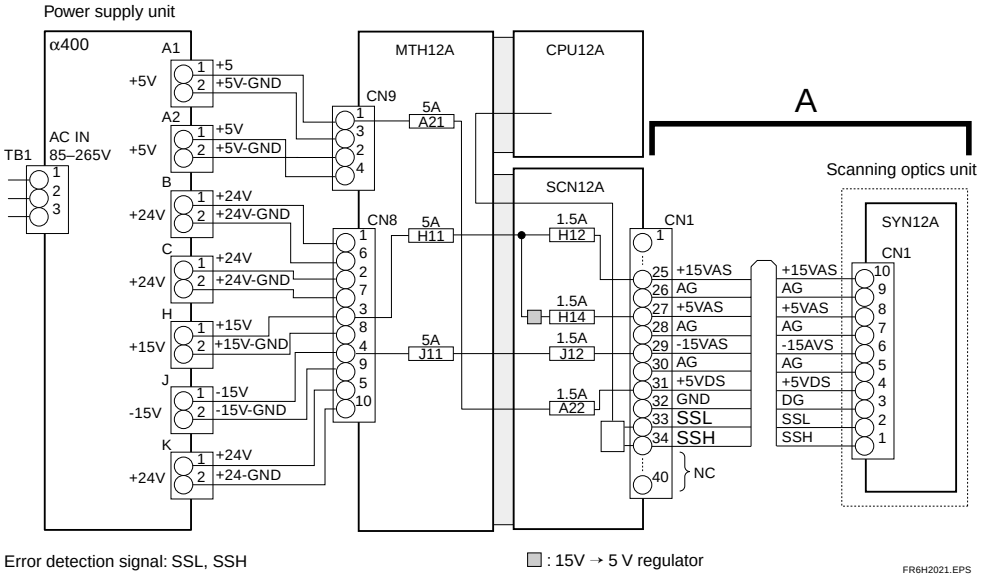
- *High-voltage switch in the ON position → LED ON*
- *High-voltage switch in the OFF position → LED OFF*



[NG indication]

All other than GOOD indication.

[4] Block Diagram



[5] Checking the Cable

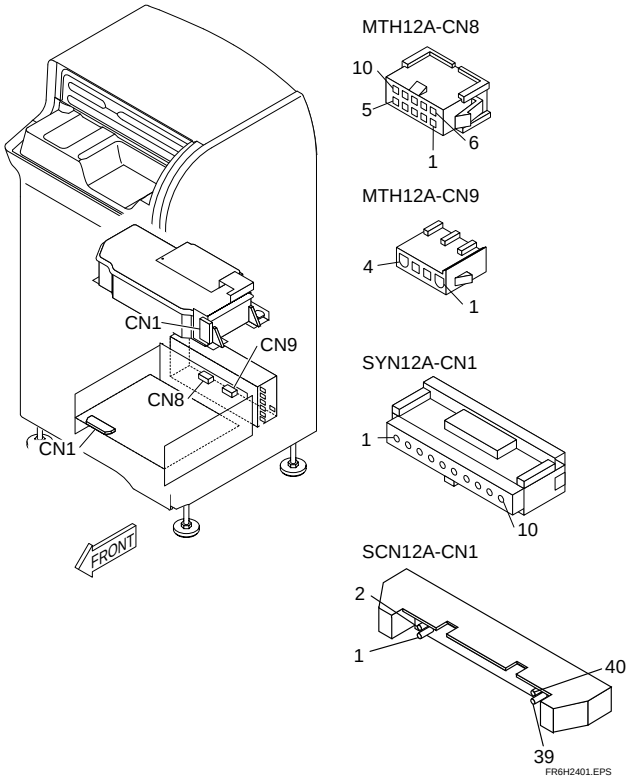
◆ ***NOTE*** ◆

Make sure that the power is OFF.

Check the following between portions <A> in the block diagram.

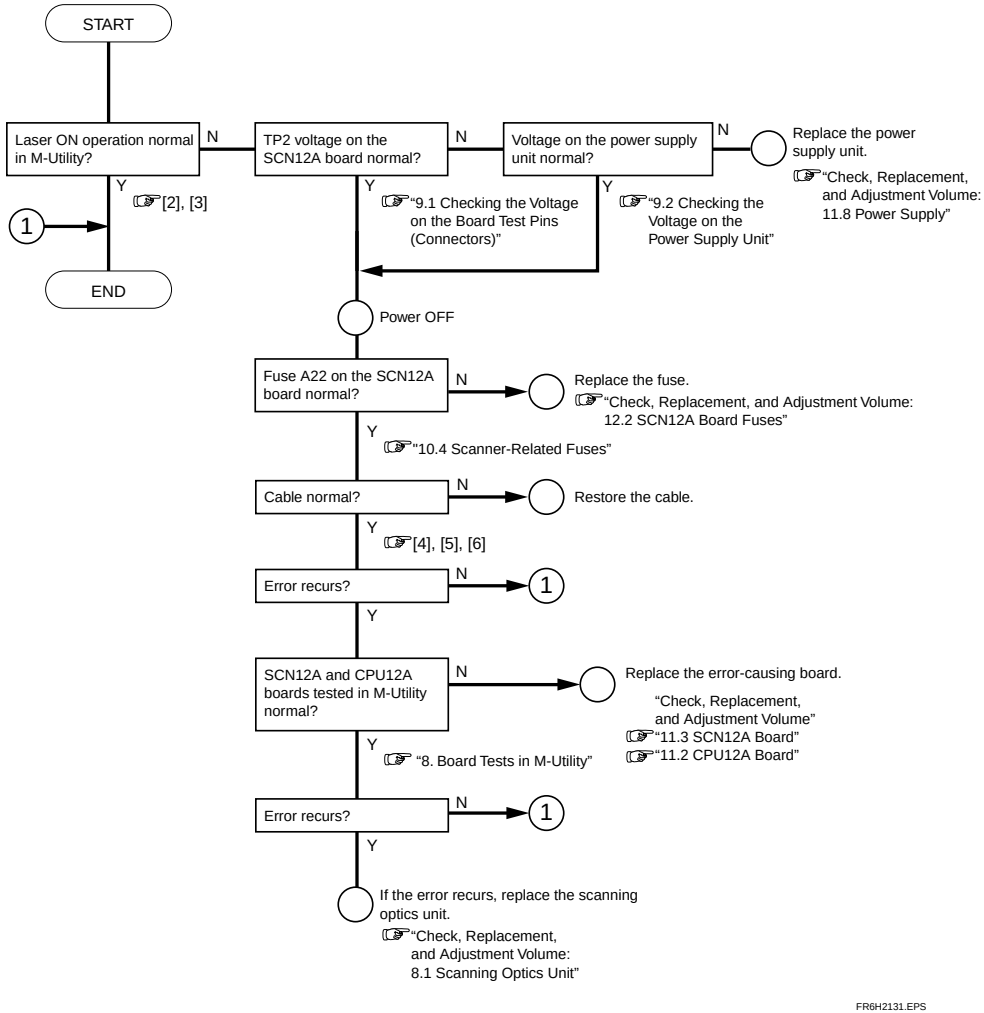
1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[6] Connector Pin Numbers



14.4 Checking the Leading-Edge Sensor (SED)

[1] Analysis Flow



FR6H2131.EPS

[2] Checking Laser ON in M-Utility

◆ ***CHECK*** ◆

Check the diagnostics and LED indications in M-Utility.

[5] [ENT] → [3] [ENT] → [2] [ENT]

- RESULT: OK → Normal
- RESULT: XXXXX → Error

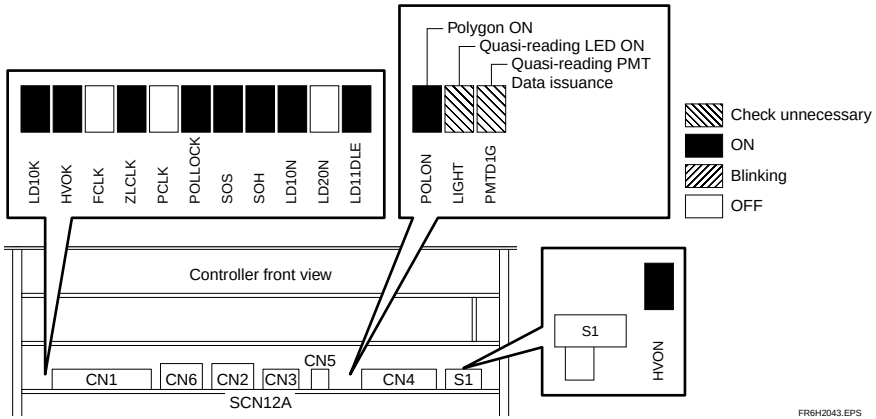
[3] LED Indications

[GOOD indication]

◆ ***NOTE*** ◆

Because the "HVOK" LED indication varies depending on the position of the HV switch, check the position of the HV switch.

- *High-voltage switch in the ON position → LED ON*
- *High-voltage switch in the OFF position → LED OFF*

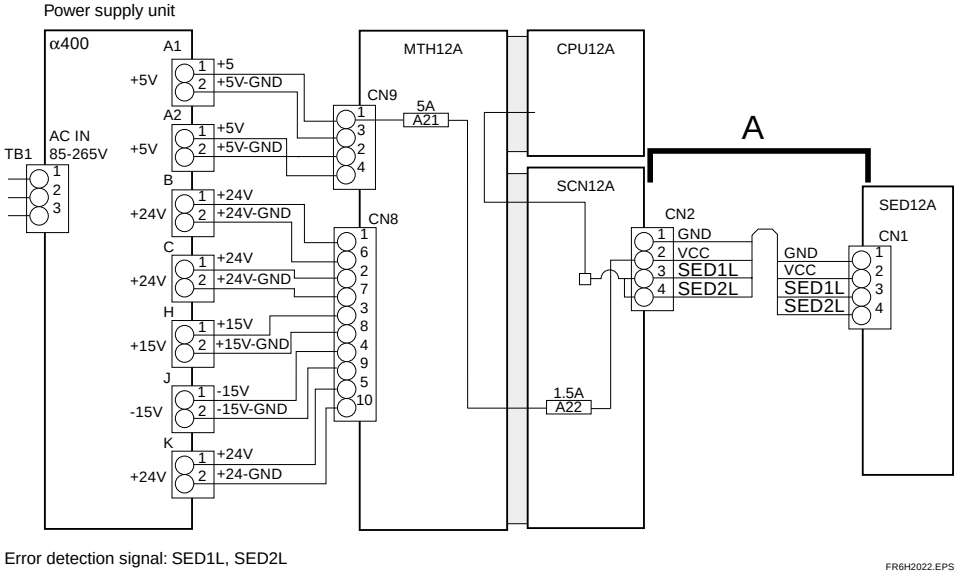


FR6H2043.EPS

[NG indication]

All other than GOOD indication.

[4] Block Diagram



Error detection signal: SED1L, SED2L

[5] Checking the Cable

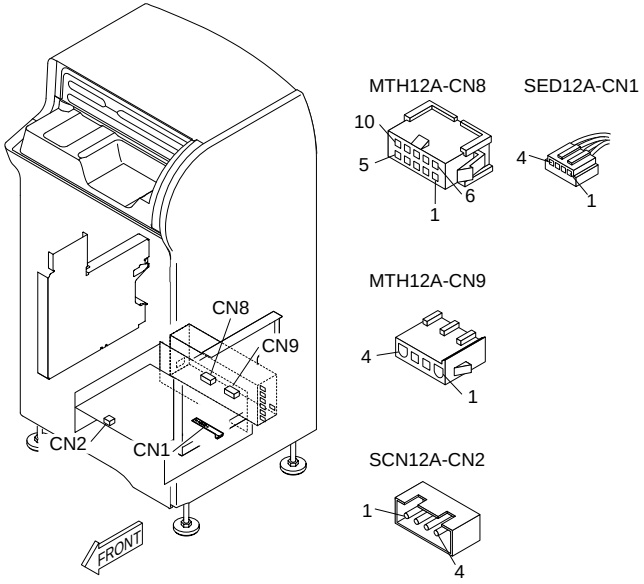
◆ ***NOTE*** ◆

Make sure that the power is OFF.

Check the following between portions <A> in the block diagram.

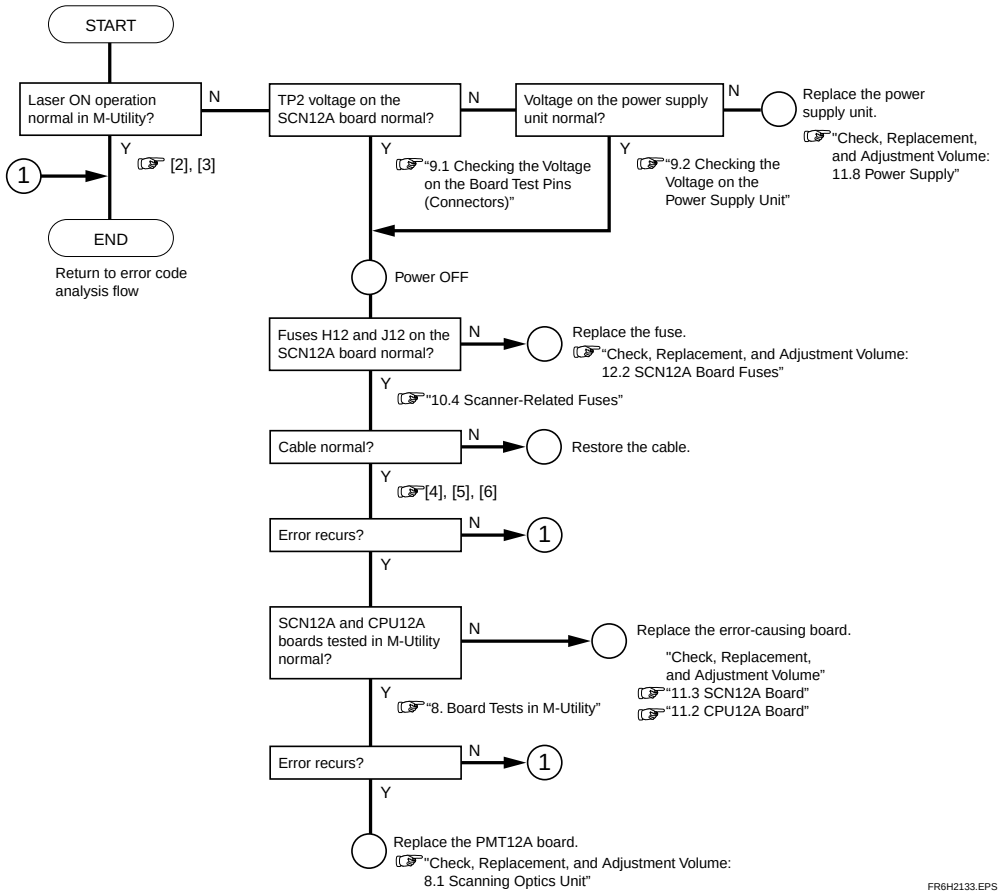
1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

[6] Connector Pin Numbers



14.5 Checking the Light-Collecting Unit (PMT)

[1] Analysis Flow



[2] Checking the Light-Collecting Unit in M-Utility

◆ *CHECK* ◆

Check the diagnostics and LED indications in M-Utility.

[5] [ENT] → [3] [ENT] → [2] [ENT]

- RESULT: OK → Normal
- RESULT: XXXXX → Error

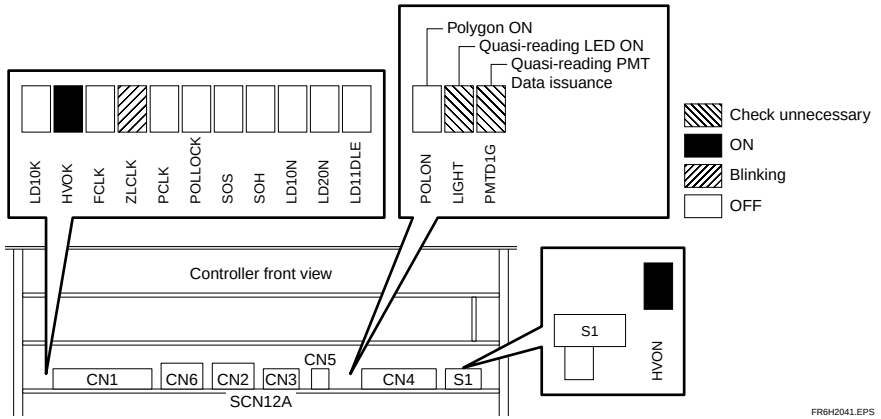
[3] LED Indications

[GOOD indication]

◆ *NOTE* ◆

Because the "HVOK" LED indication varies depending on the position of the HV switch, check the position of the HV switch.

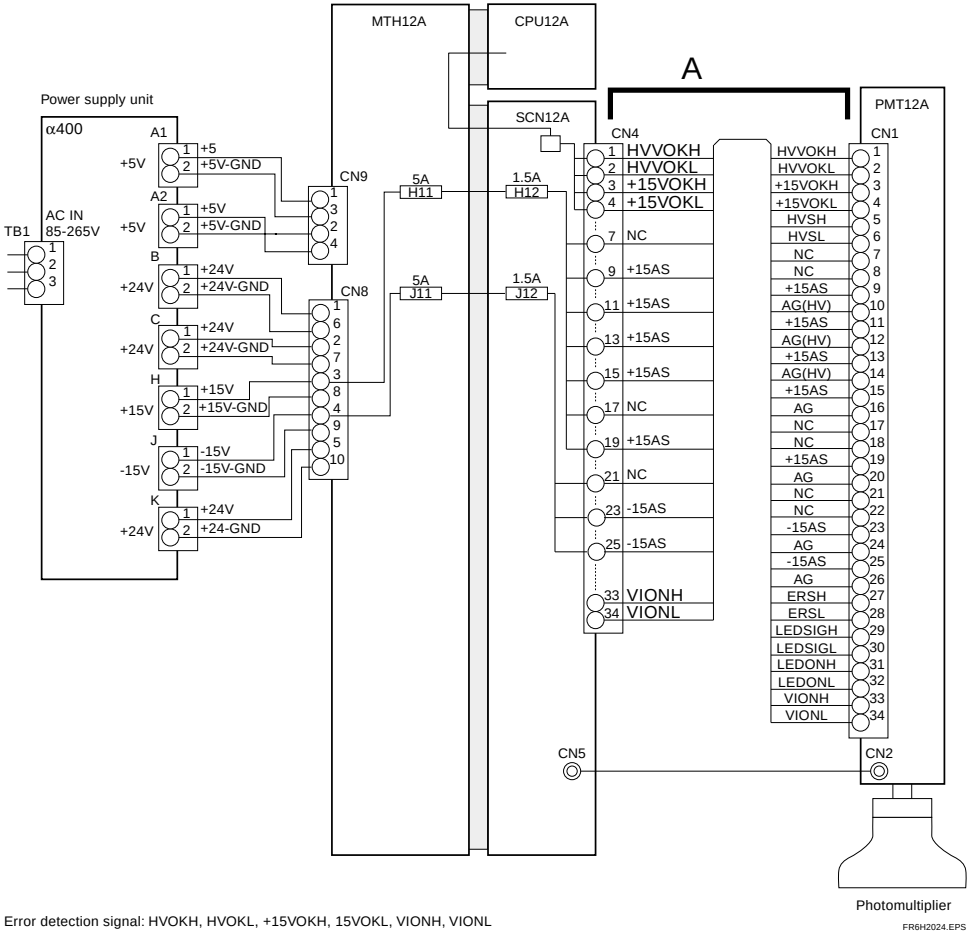
- *High-voltage switch in the ON position → LED ON*
- *High-voltage switch in the OFF position → LED OFF*



[NG indication]

All other than GOOD indication.

[4] Block Diagram



Error detection signal: HVOKH, HVOKL, +15VOKH, 15VOKL, VIONH, VIONL

[5] Checking the Cable

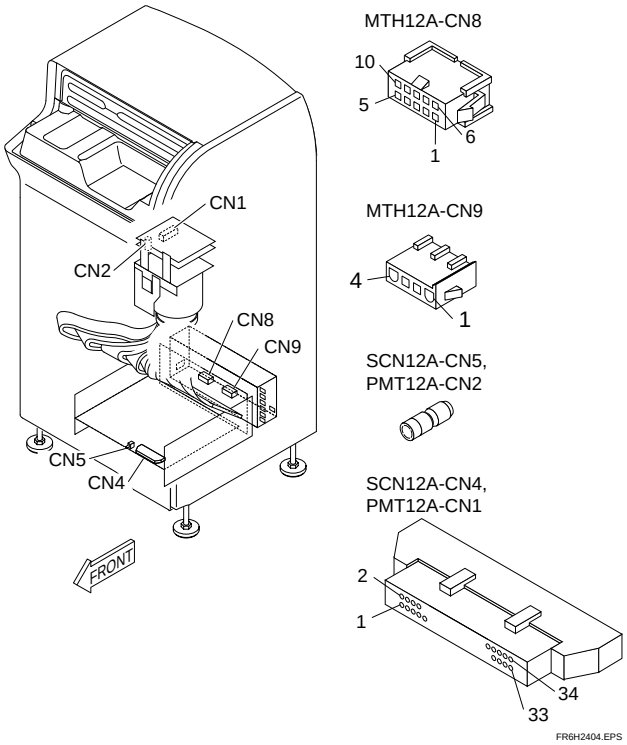
◆ ***NOTE*** ◆

Make sure that the power is OFF.

Check the following between portions <A> in the block diagram.

1. The connector should be securely connected.
2. Check for shorts between each of the pins and GND → 2Ω or greater.
3. Check for shorts between each of the pins → 2Ω or greater.
4. Check for continuity of each of the pins → 1Ω or less.

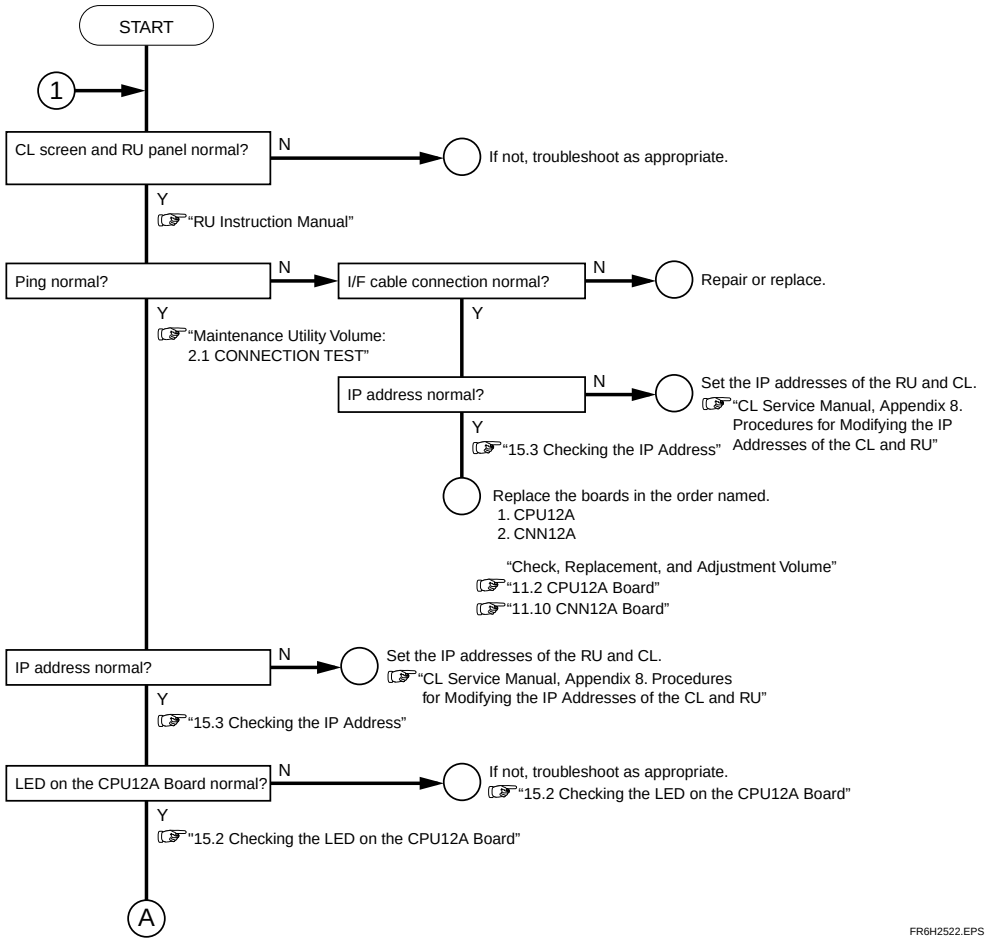
[6] Connector Pin Numbers



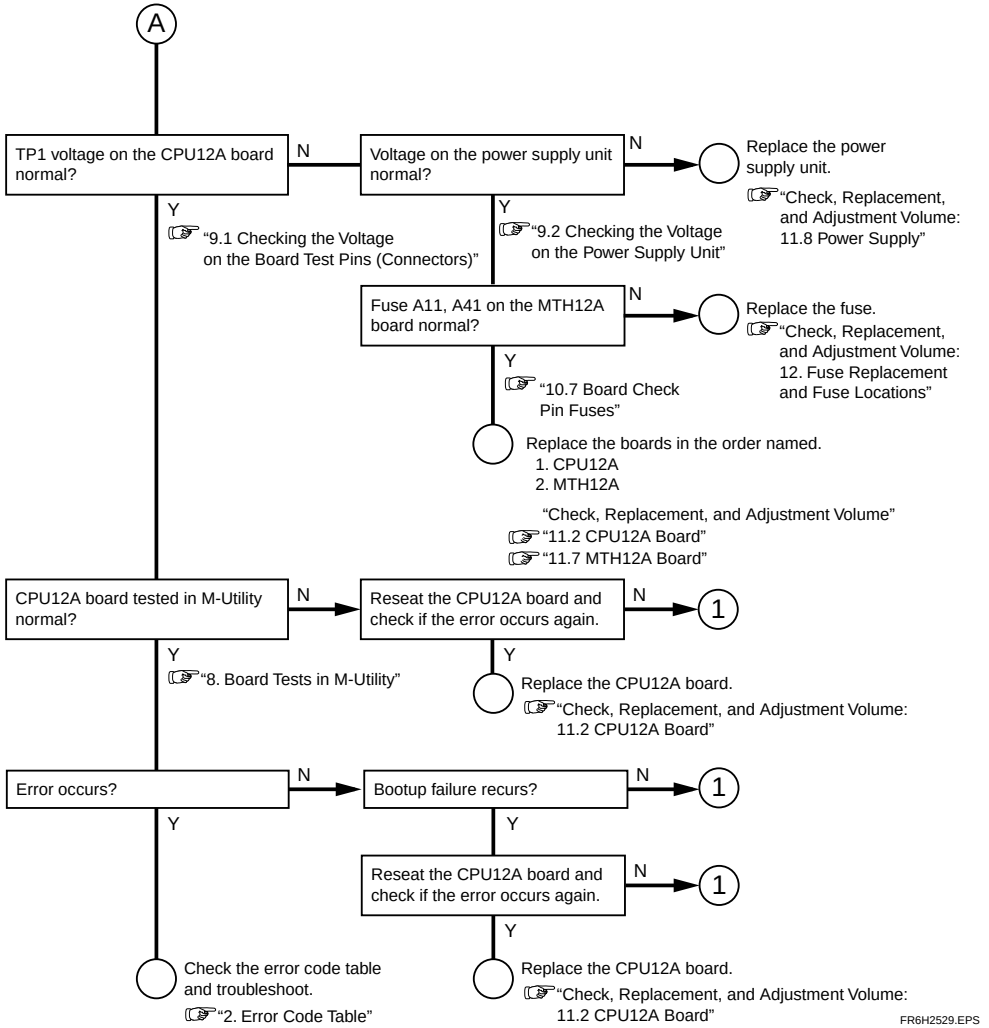
15. Bootup Failure Analysis Flow

15.1 RU Bootup Failure

[1] Analysis Flow


START
1
CL screen and RU panel normal?
N
If not, troubleshoot as appropriate.
Y
☞"RU Instruction Manual"
Ping normal?
N
I/F cable connection normal?
N
Repair or replace.
Y
☞"Maintenance Utility Volume: 2.1 CONNECTION TEST"
Y
IP address normal?
N
Set the IP addresses of the RU and CL.
☞"CL Service Manual, Appendix 8. Procedures for Modifying the IP Addresses of the CL and RU"
Y
☞"15.3 Checking the IP Address"
Replace the boards in the order named.
1. CPU12A
2. CNN12A
"Check, Replacement, and Adjustment Volume"
☞"11.2 CPU12A Board"
☞"11.10 CNN12A Board"
IP address normal?
N
Set the IP addresses of the RU and CL.
☞"CL Service Manual, Appendix 8. Procedures for Modifying the IP Addresses of the CL and RU"
Y
☞"15.3 Checking the IP Address"
LED on the CPU12A Board normal?
N
If not, troubleshoot as appropriate.
☞"15.2 Checking the LED on the CPU12A Board"
Y
☞"15.2 Checking the LED on the CPU12A Board"
A

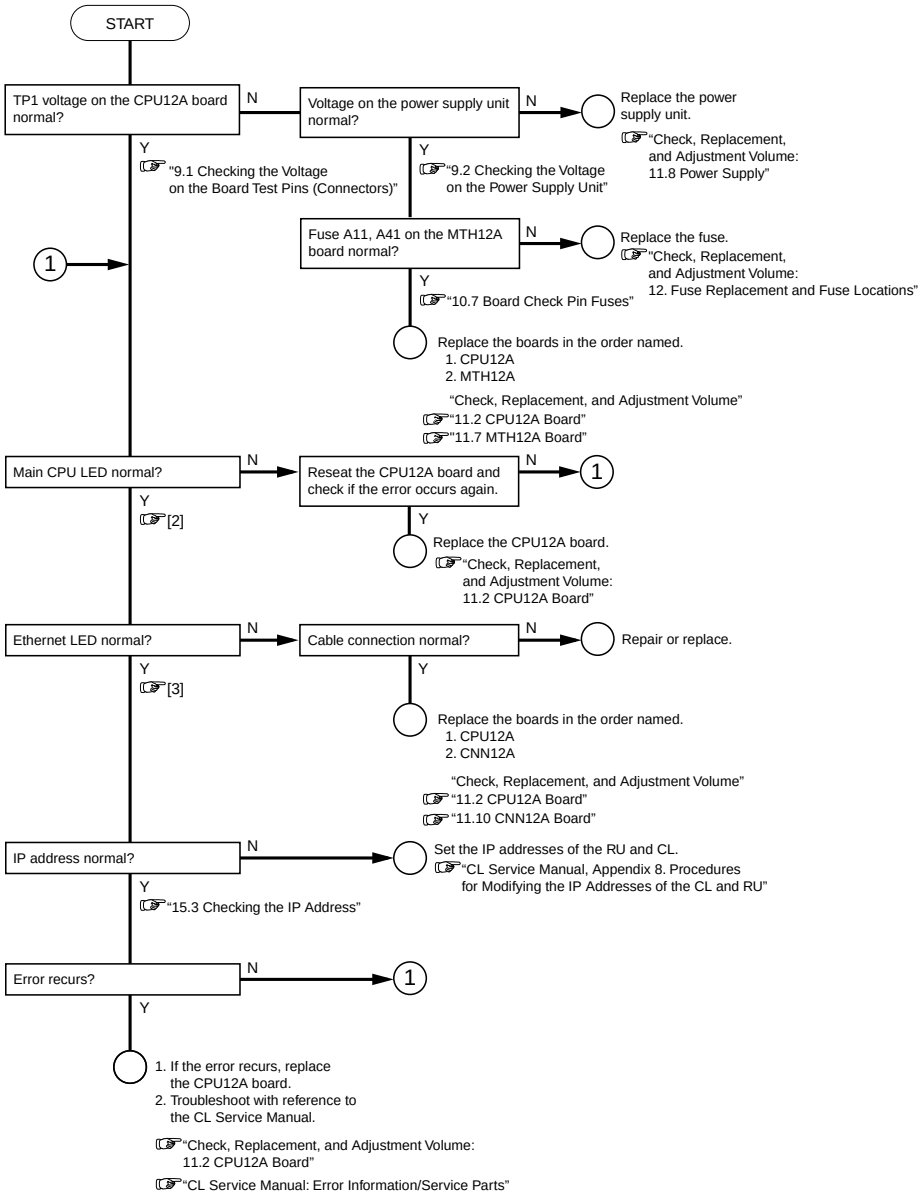
FR6H2522.EPS



FR6H2529.EPS

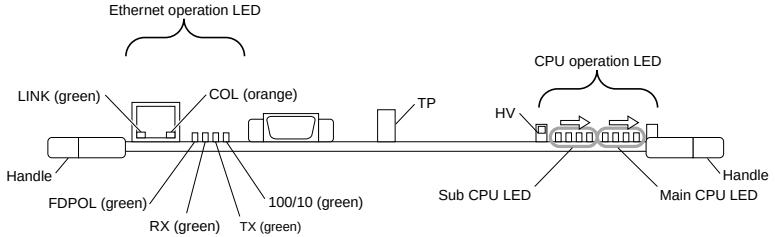
15.2 Checking the LED on the CPU12A Board

[1] Analysis Flow



FR6H2523.EPS

[2] LED Check

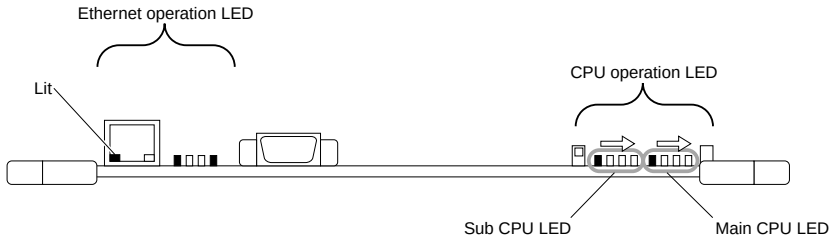


Meanings of Ethernet operation LED illumination						Meaning of CPU operation LED illumination	
LINK	COL	FDPOL	RX	TX	100/10	Main CPU LED	Sub CPU LED
Link established	Collision occurred	In operation	Packet receiving	Packet sending	Connected at 100Mbps	Indicate operating status	Indicate operating status

FR6H2526.EPS

[3] LED Indication

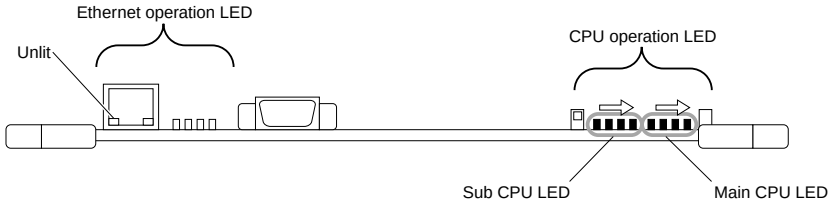
[GOOD indication]



FR6H2524.EPS

[NG indication]

• When the network cable is not connected

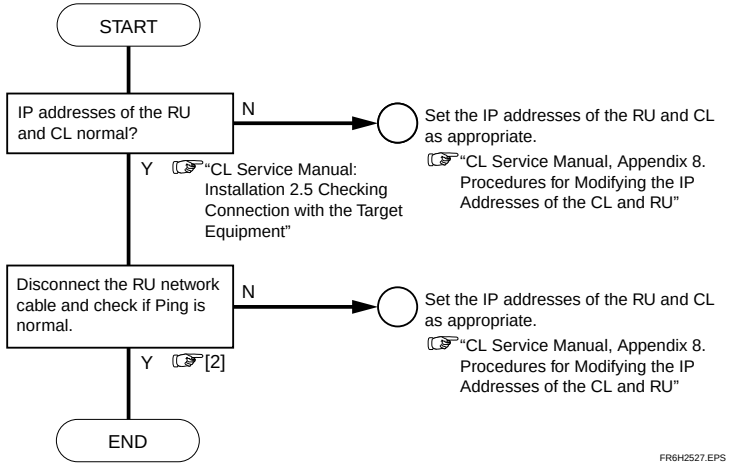


✻ When both of the main and sub CPUs are not operating, all the bits of the LED are lit or unlit.

FR6H2525.EPS

15.3 Checking the IP Address

[1] Analysis Flow


START
IP addresses of the RU and CL normal?
N
Set the IP addresses of the RU and CL as appropriate.
☞"CL Service Manual, Appendix 8. Procedures for Modifying the IP Addresses of the CL and RU"
Y
☞"CL Service Manual: Installation 2.5 Checking Connection with the Target Equipment"
Disconnect the RU network cable and check if Ping is normal.
N
Set the IP addresses of the RU and CL as appropriate.
☞"CL Service Manual, Appendix 8. Procedures for Modifying the IP Addresses of the CL and RU"
Y
☞[2]
END

FR6H2527.EPS

[2] Checking Ping with RU Network Cable Disconnected

[GOOD indication]

```
Pinging 172.16.1.10 with 32 bytes of data:

Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.

Ping statistics for 172.16.1.10:
    Packets: Sent = 4,Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

FR6H2530.EPS

[NG indication]

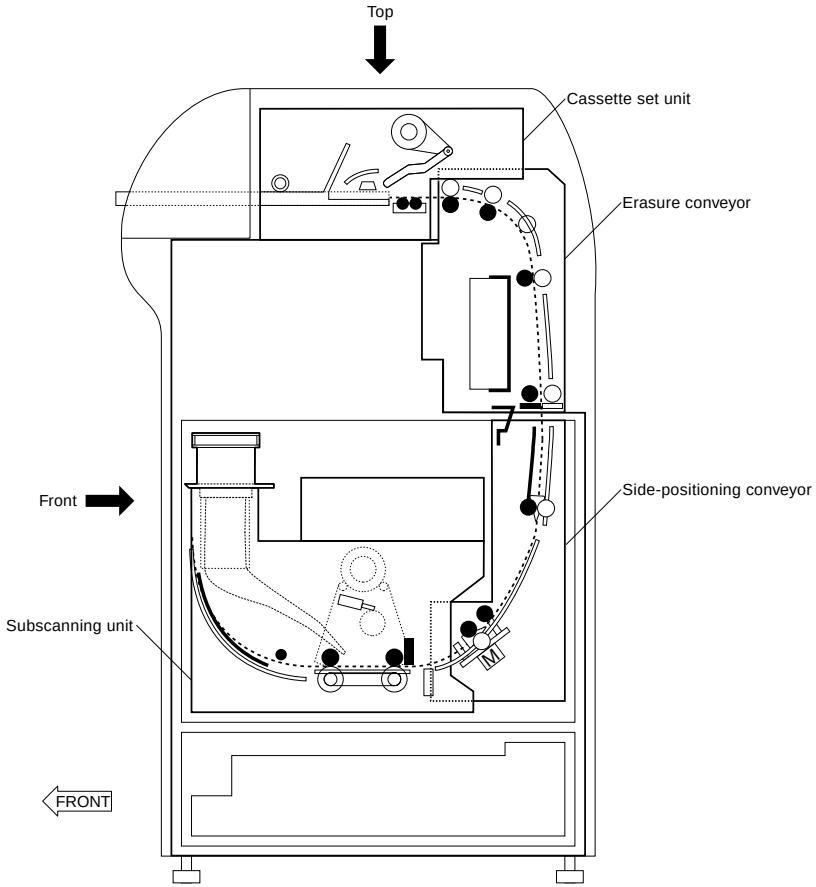
```
Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time<10ms TTL=255
Reply from 172.16.1.10: bytes=32 time<10ms TTL=255
Reply from 172.16.1.10: bytes=32 time<10ms TTL=255
Reply from 172.16.1.10: bytes=32 time<10ms TTL=255

Ping statistics for 172.16.1.10:
    Packets: Sent = 4,Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

FR6H2531.EPS

16. Troubleshooting Based on Scratches or Streaks in the IP Conveyance Direction

Scratches or streaks may occur on the IP due to IP conveyance roller edges or guides. If such scratches or streaks are found on the IP, measure the distance from the edge of the IP (reference side for IP conveyance) to the scratch or streak, and analyze the possible cause(s).

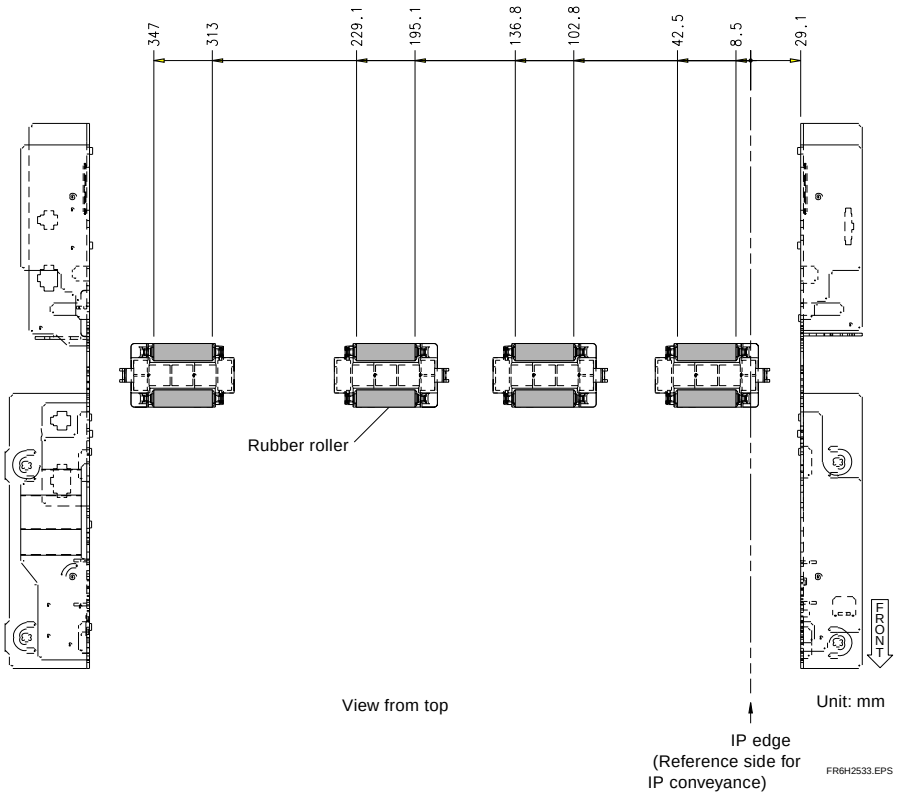
16.1 Troubleshooting Based on Scratches or Streaks on the IP Fluorescent Face (White)



Black portion: Part that may cause scratches or streaks on the IP fluorescent face (white)
--- : IP conveyance path

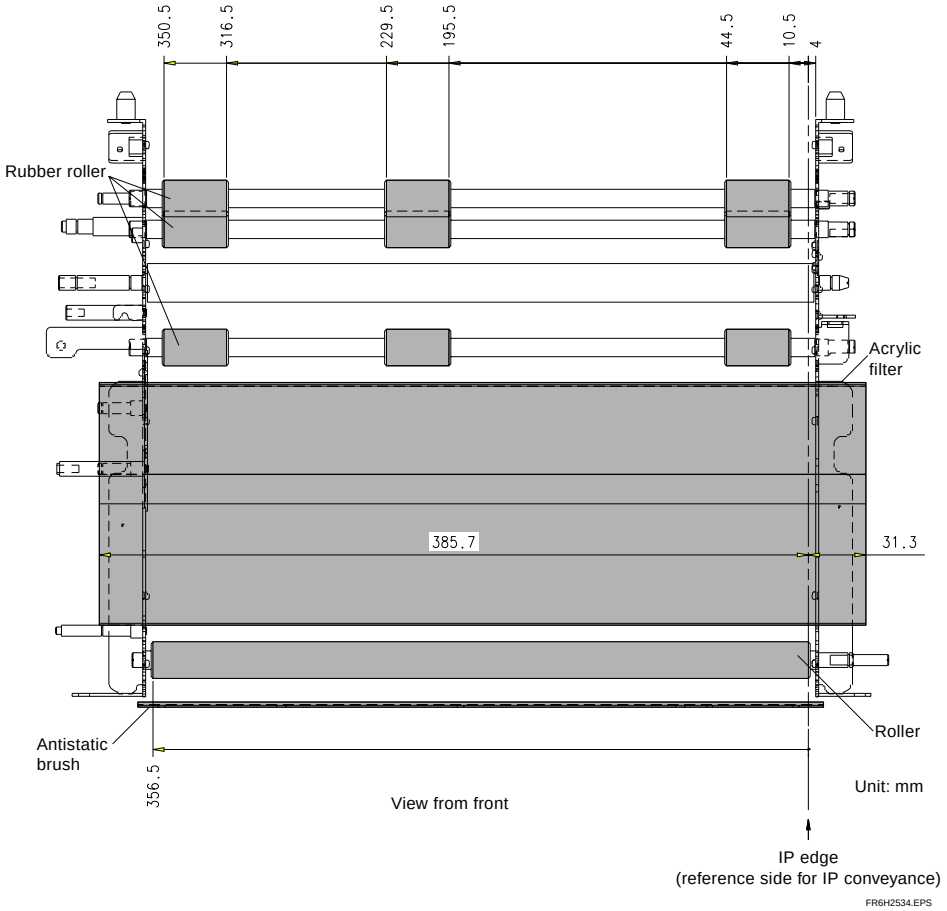
FR6H2532.EPS

■ **Cassette Set Unit**

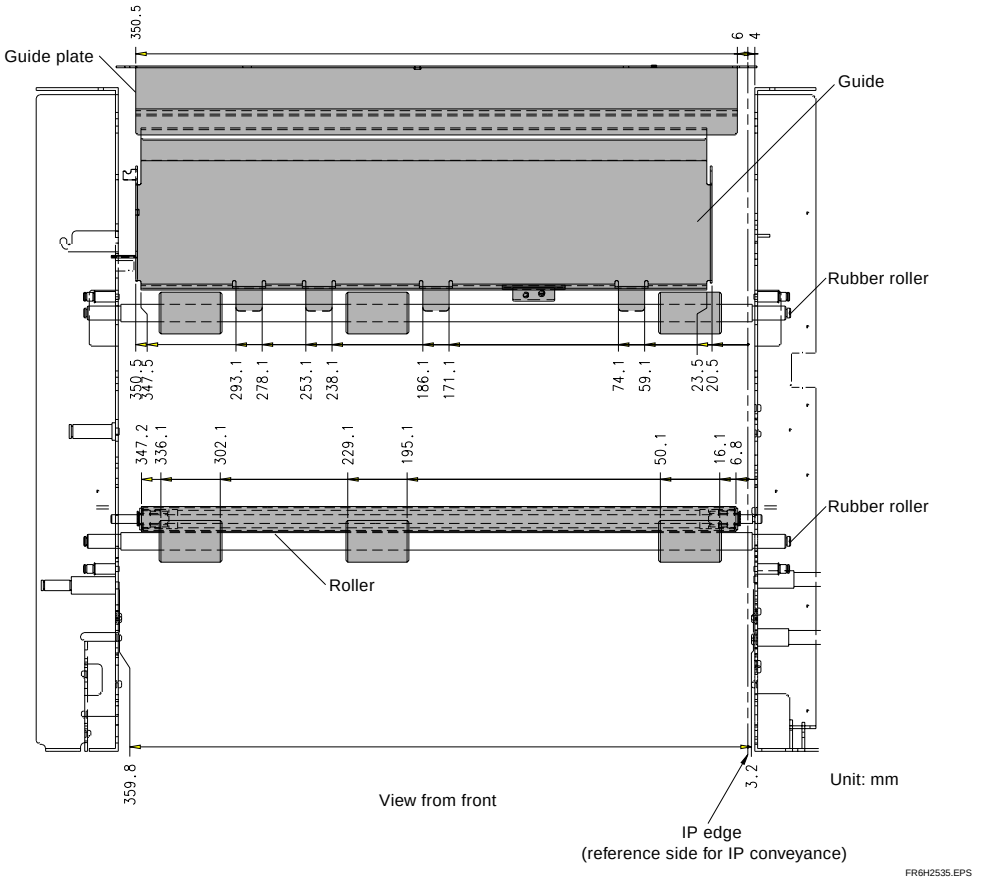


FR6H2533.EPS

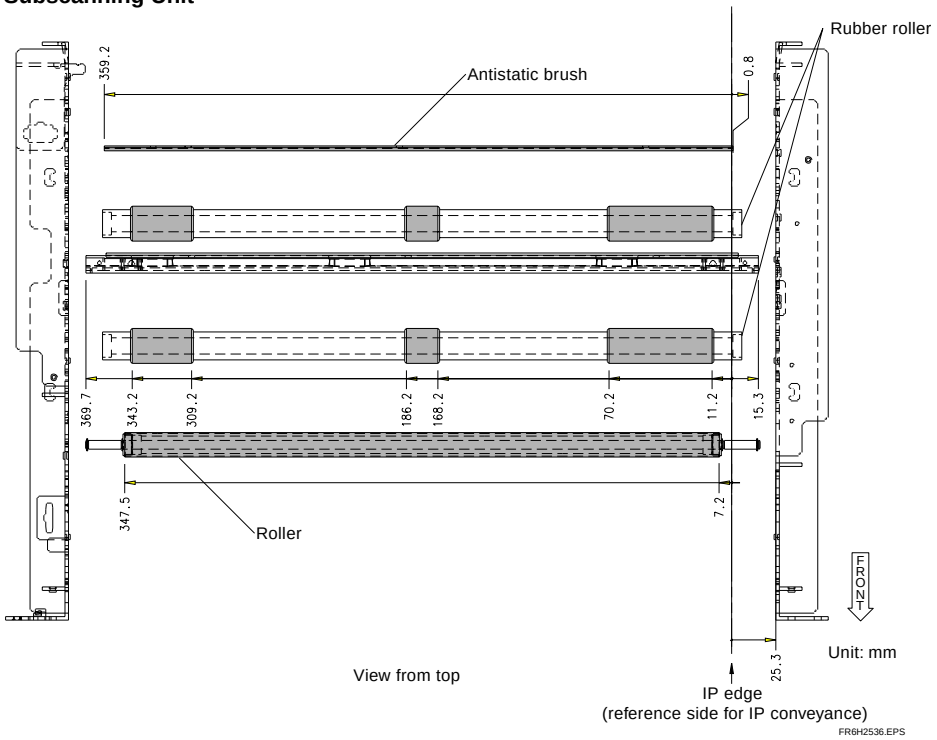
■ Erasure Conveyor



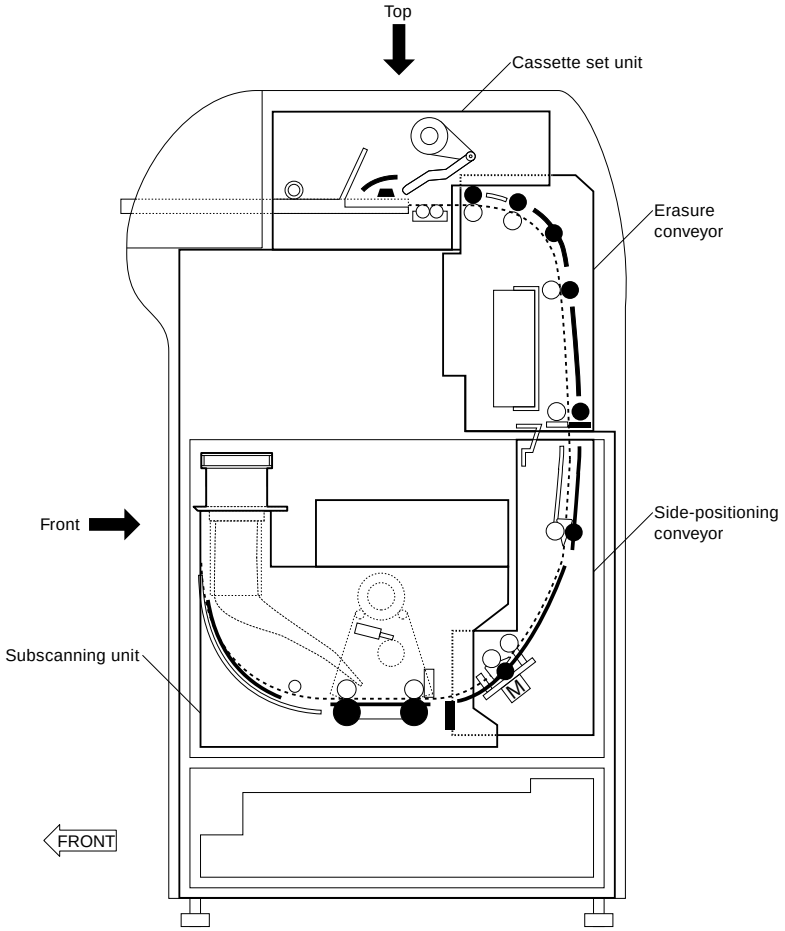
■ Side-Positioning Conveyor



■ Subscanning Unit



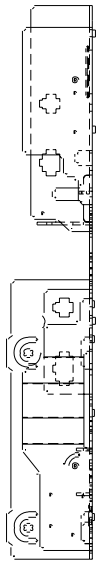
16.2 Troubleshooting Based on Scratches or Streaks on the IP Back Face (Black)

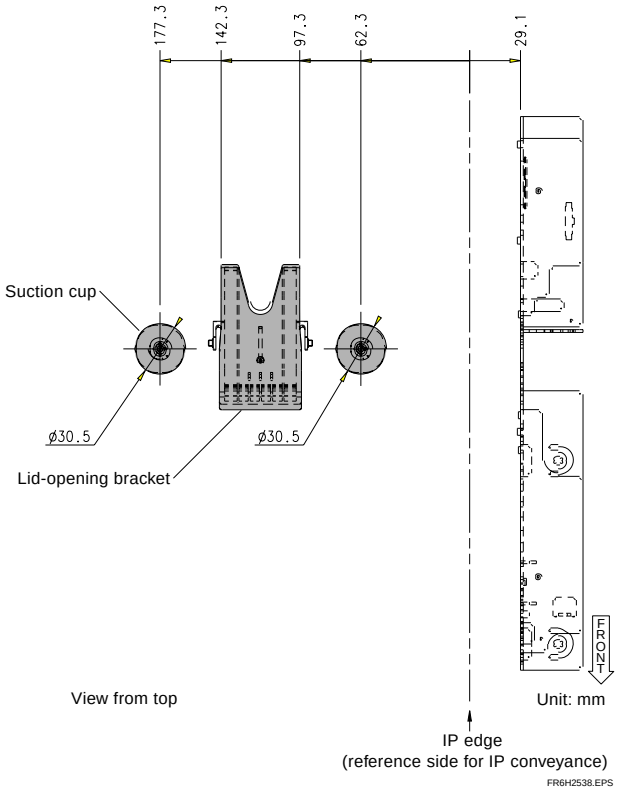


Black portion: Part that may cause scratches or streaks on the IP back face (black)
---: IP conveyance path

FR6H2537.EPS

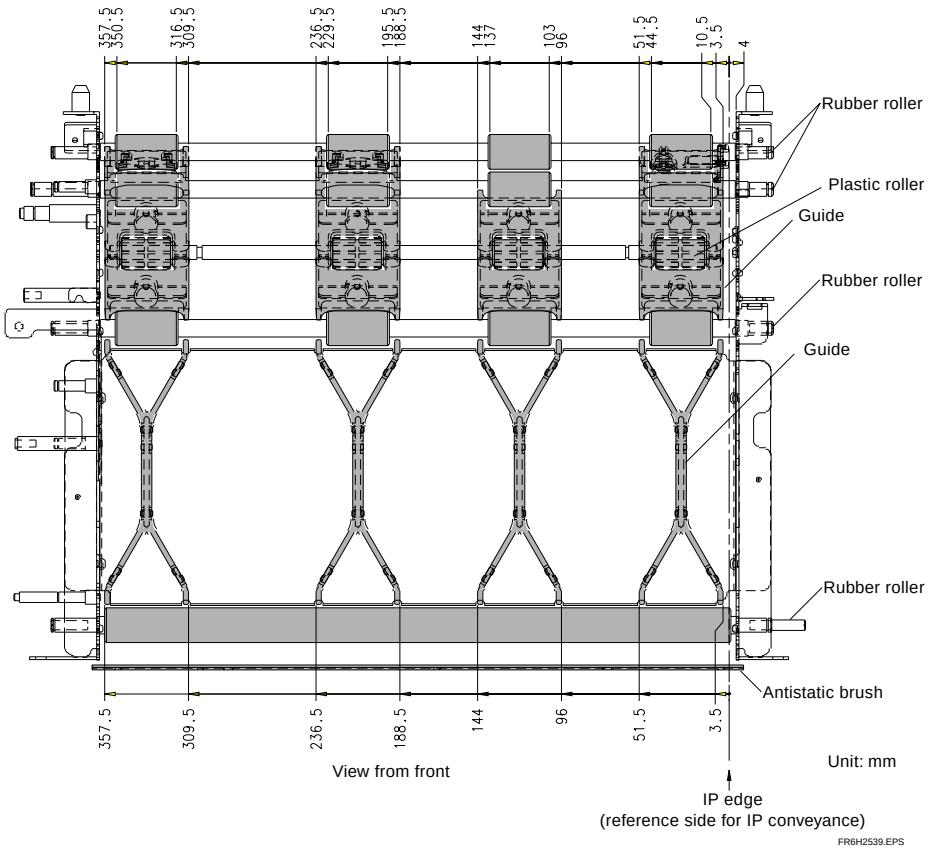
■ **Cassette Set Unit**



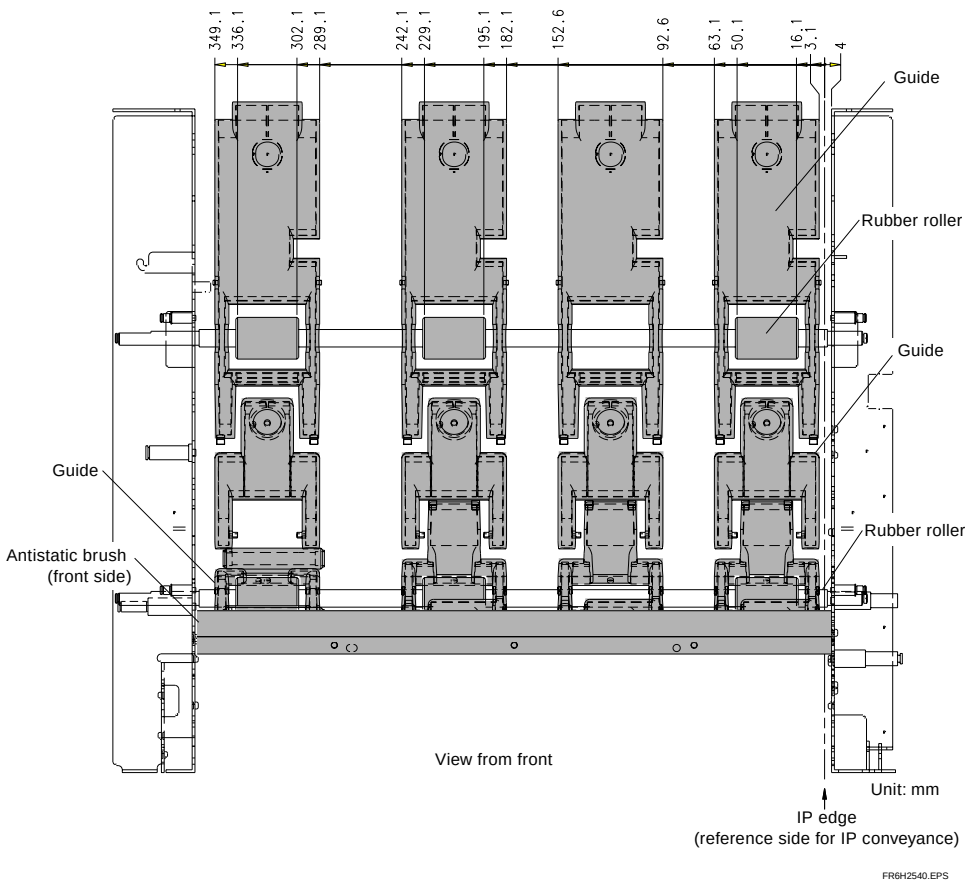


FR6H2538.EPS

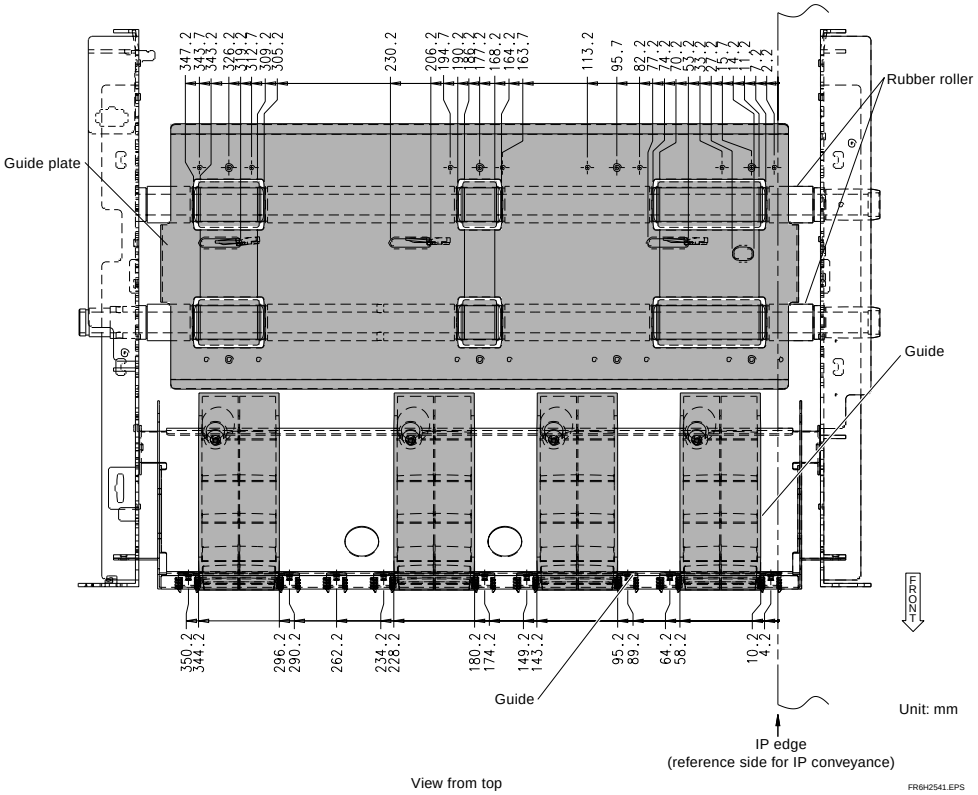
■ Erasure Conveyor



■ Side-Positioning Conveyor



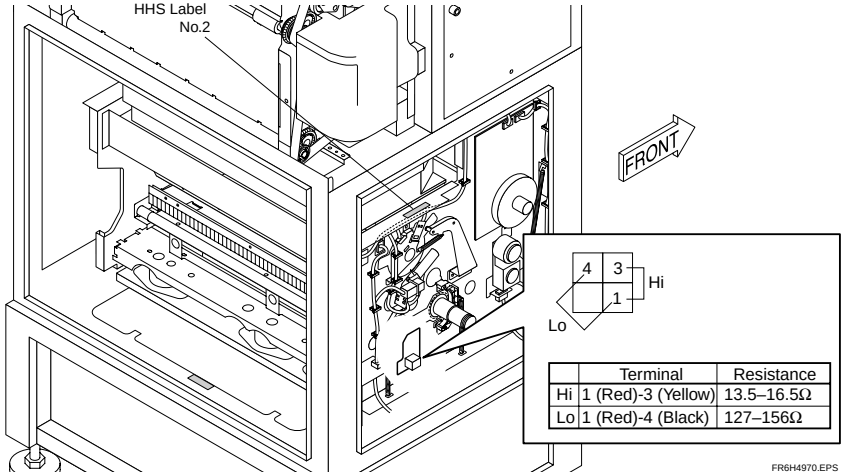
■ Subscanning Unit



16.3 Checking the Resistance Value of the Solenoid Connector

■ Checking the Resistance Value

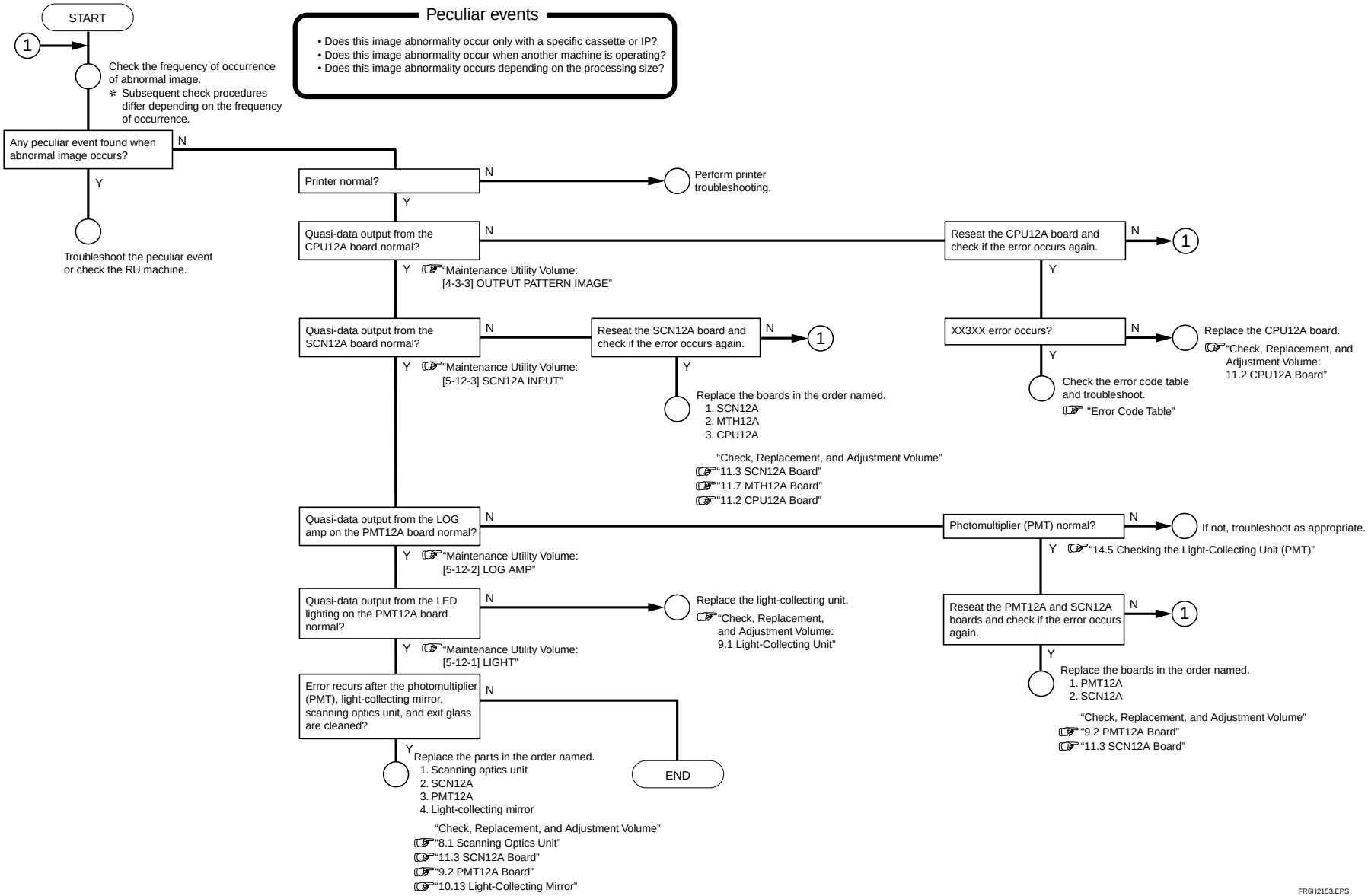
The reference for the solenoid connector resistance value is shown below.



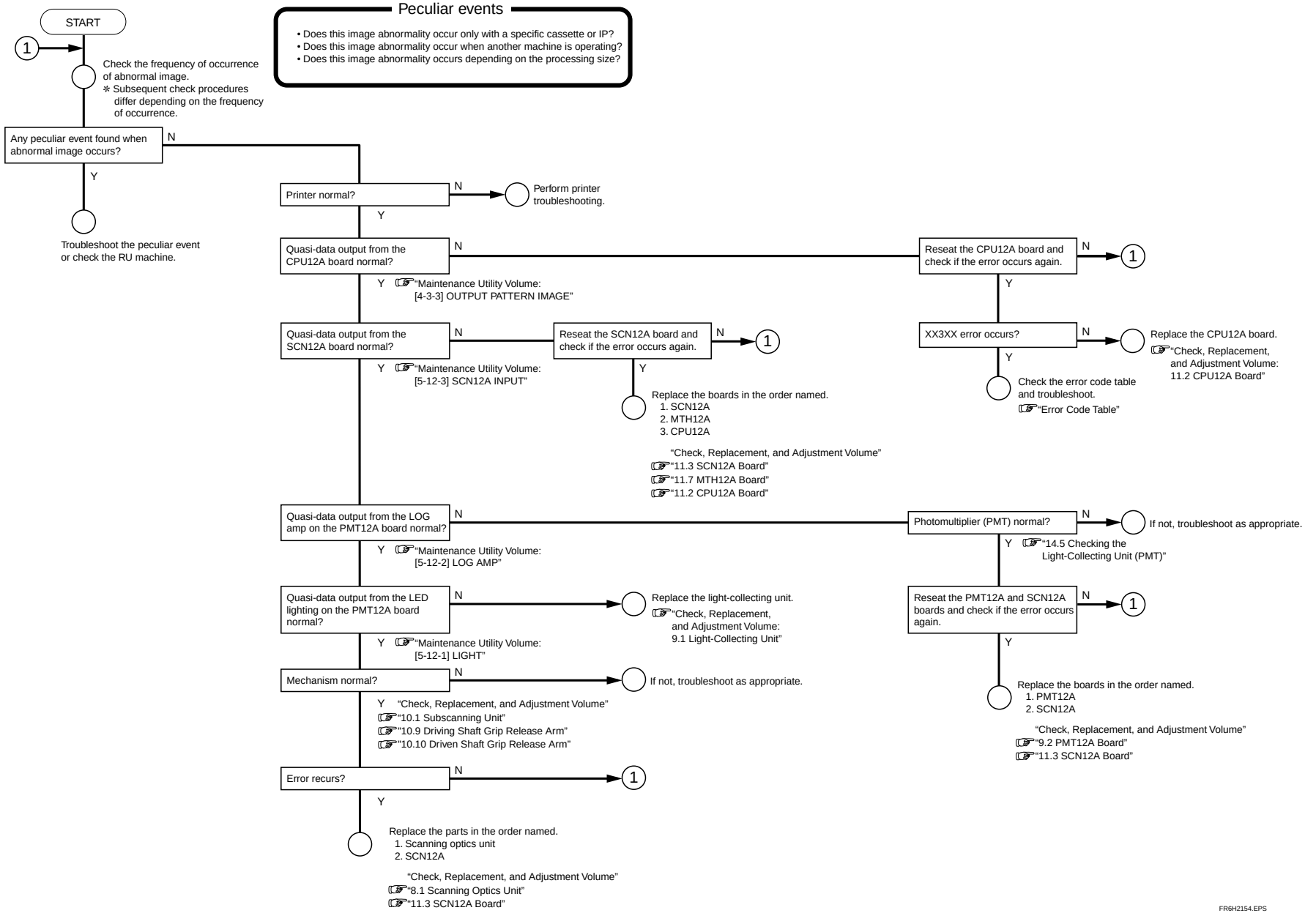
	Terminal	Resistance
Hi	1 (Red)-3 (Yellow)	13.5–16.5Ω
Lo	1 (Red)-4 (Black)	127–156Ω

17. Image Troubleshooting Flow

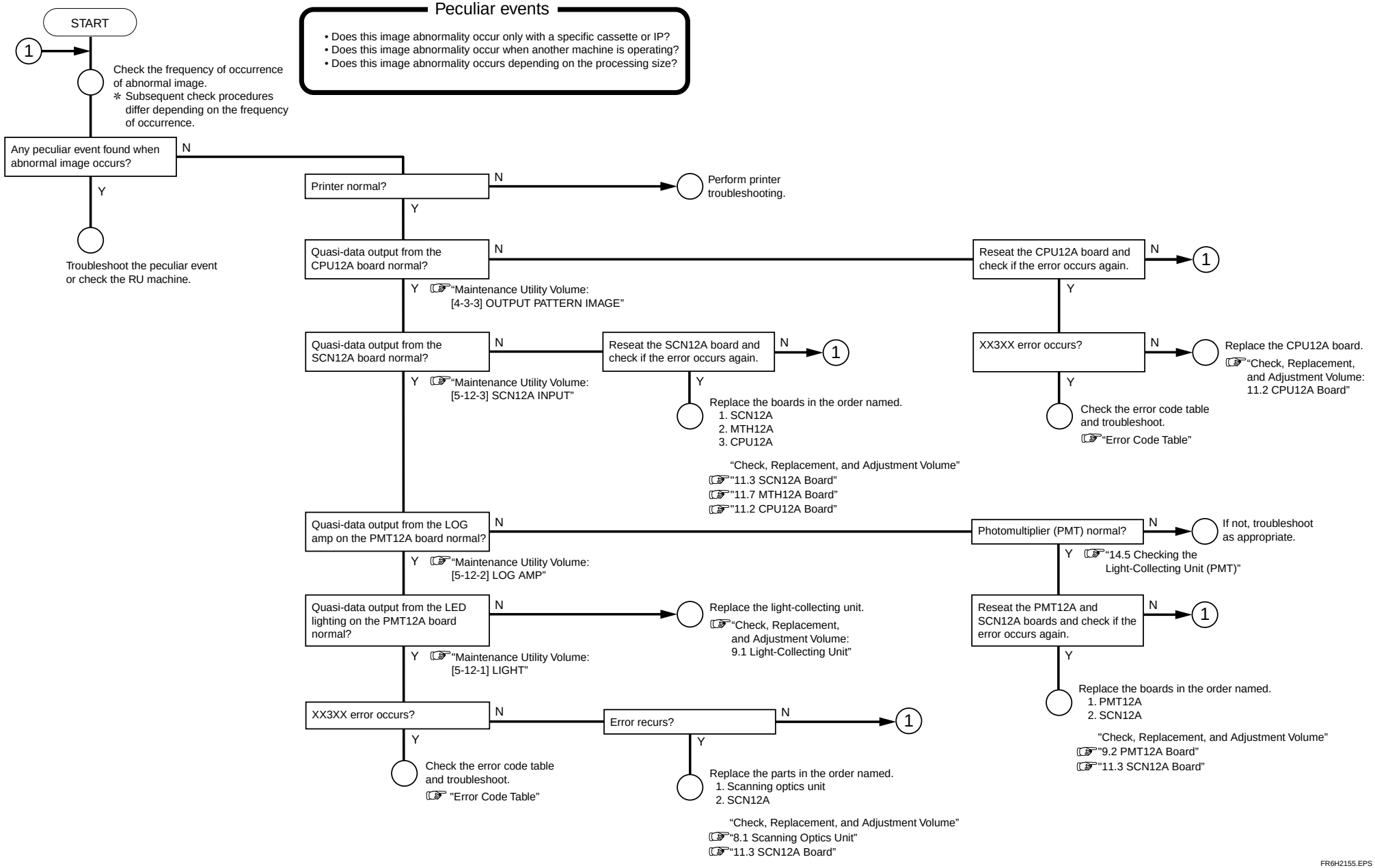
[1] Vertical Streaks


START
1
Check the frequency of occurrence of abnormal image.
* Subsequent check procedures differ depending on the frequency of occurrence.
Peculiar events
• Does this image abnormality occur only with a specific cassette or IP?
• Does this image abnormality occur when another machine is operating?
• Does this image abnormality occurs depending on the processing size?
Any peculiar event found when abnormal image occurs?
N
Y
Troubleshoot the peculiar event or check the RU machine.
Printer normal?
N
Perform printer troubleshooting.
Y
Quasi-data output from the CPU12A board normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [4-3-3] OUTPUT PATTERN IMAGE"
Y
XX3XX error occurs?
N
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
Y
Check the error code table and troubleshoot.
☞ "Error Code Table"
Quasi-data output from the SCN12A board normal?
N
Reseat the SCN12A board and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [5-12-3] SCN12A INPUT"
Y
Replace the boards in the order named.
1. SCN12A
2. MTH12A
3. CPU12A
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"11.7 MTH12A Board"
☞"11.2 CPU12A Board"
Quasi-data output from the LOG amp on the PMT12A board normal?
N
Photomultiplier (PMT) normal?
N
If not, troubleshoot as appropriate.
Y
☞"Maintenance Utility Volume: [5-12-2] LOG AMP"
Y
☞"14.5 Checking the Light-Collecting Unit (PMT)"
Quasi-data output from the LED lighting on the PMT12A board normal?
N
Replace the light-collecting unit.
☞"Check, Replacement, and Adjustment Volume: 9.1 Light-Collecting Unit"
Reseat the PMT12A and SCN12A boards and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [5-12-1] LIGHT"
Y
Replace the boards in the order named.
1. PMT12A
2. SCN12A
"Check, Replacement, and Adjustment Volume"
☞"9.2 PMT12A Board"
☞"11.3 SCN12A Board"
Error recurs after the photomultiplier (PMT), light-collecting mirror, scanning optics unit, and exit glass are cleaned?
N
END
Y
Replace the parts in the order named.
1. Scanning optics unit
2. SCN12A
3. PMT12A
4. Light-collecting mirror
"Check, Replacement, and Adjustment Volume"
☞"8.1 Scanning Optics Unit"
☞"11.3 SCN12A Board"
☞"9.2 PMT12A Board"
☞"10.13 Light-Collecting Mirror"
FR6H2153.EPS

[2] Horizontal Streaks


START
1
Check the frequency of occurrence of abnormal image.
✻ Subsequent check procedures differ depending on the frequency of occurrence.
Peculiar events
• Does this image abnormality occur only with a specific cassette or IP?
• Does this image abnormality occur when another machine is operating?
• Does this image abnormality occurs depending on the processing size?
Any peculiar event found when abnormal image occurs?
N
Y
Troubleshoot the peculiar event or check the RU machine.
Printer normal?
N
Perform printer troubleshooting.
Y
Quasi-data output from the CPU12A board normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
Y ☞"Maintenance Utility Volume: [4-3-3] OUTPUT PATTERN IMAGE"
Quasi-data output from the SCN12A board normal?
N
Reseat the SCN12A board and check if the error occurs again.
N
1
Y ☞"Maintenance Utility Volume: [5-12-3] SCN12A INPUT"
Y
Replace the boards in the order named.
1. SCN12A
2. MTH12A
3. CPU12A
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"11.7 MTH12A Board"
☞"11.2 CPU12A Board"
XX3XX error occurs?
N
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
Y
Check the error code table and troubleshoot.
☞"Error Code Table"
Quasi-data output from the LOG amp on the PMT12A board normal?
N
Photomultiplier (PMT) normal?
N
If not, troubleshoot as appropriate.
Y ☞"Maintenance Utility Volume: [5-12-2] LOG AMP"
Y ☞"14.5 Checking the Light-Collecting Unit (PMT)"
Quasi-data output from the LED lighting on the PMT12A board normal?
N
Replace the light-collecting unit.
☞"Check, Replacement, and Adjustment Volume: 9.1 Light-Collecting Unit"
Reseat the PMT12A and SCN12A boards and check if the error occurs again.
N
1
Y ☞"Maintenance Utility Volume: [5-12-1] LIGHT"
Y
Mechanism normal?
N
If not, troubleshoot as appropriate.
Y "Check, Replacement, and Adjustment Volume"
☞"10.1 Subscanning Unit"
☞"10.9 Driving Shaft Grip Release Arm"
☞"10.10 Driven Shaft Grip Release Arm"
Replace the boards in the order named.
1. PMT12A
2. SCN12A
"Check, Replacement, and Adjustment Volume"
☞"9.2 PMT12A Board"
☞"11.3 SCN12A Board"
Error recurs?
N
1
Y
Replace the parts in the order named.
1. Scanning optics unit
2. SCN12A
"Check, Replacement, and Adjustment Volume"
☞"8.1 Scanning Optics Unit"
☞"11.3 SCN12A Board"
FR6H2154.EPS

[3] Other Abnormal Image


START
1
Check the frequency of occurrence of abnormal image.
* Subsequent check procedures differ depending on the frequency of occurrence.
Peculiar events
• Does this image abnormality occur only with a specific cassette or IP?
• Does this image abnormality occur when another machine is operating?
• Does this image abnormality occurs depending on the processing size?
Any peculiar event found when abnormal image occurs?
N
Y
Troubleshoot the peculiar event or check the RU machine.
Printer normal?
N
Perform printer troubleshooting.
Y
Quasi-data output from the CPU12A board normal?
N
Reseat the CPU12A board and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [4-3-3] OUTPUT PATTERN IMAGE"
Quasi-data output from the SCN12A board normal?
N
Reseat the SCN12A board and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [5-12-3] SCN12A INPUT"
Y
Replace the boards in the order named.
1. SCN12A
2. MTH12A
3. CPU12A
"Check, Replacement, and Adjustment Volume"
☞"11.3 SCN12A Board"
☞"11.7 MTH12A Board"
☞"11.2 CPU12A Board"
XX3XX error occurs?
N
Replace the CPU12A board.
☞"Check, Replacement, and Adjustment Volume: 11.2 CPU12A Board"
Y
Check the error code table and troubleshoot.
☞"Error Code Table"
Quasi-data output from the LOG amp on the PMT12A board normal?
N
Photomultiplier (PMT) normal?
N
If not, troubleshoot as appropriate.
Y
☞"Maintenance Utility Volume: [5-12-2] LOG AMP"
Y
☞"14.5 Checking the Light-Collecting Unit (PMT)"
Quasi-data output from the LED lighting on the PMT12A board normal?
N
Replace the light-collecting unit.
☞"Check, Replacement, and Adjustment Volume: 9.1 Light-Collecting Unit"
Reseat the PMT12A and SCN12A boards and check if the error occurs again.
N
1
Y
☞"Maintenance Utility Volume: [5-12-1] LIGHT"
Y
Replace the boards in the order named.
1. PMT12A
2. SCN12A
"Check, Replacement, and Adjustment Volume"
☞"9.2 PMT12A Board"
☞"11.3 SCN12A Board"
XX3XX error occurs?
N
Error recurs?
N
1
Y
Check the error code table and troubleshoot.
☞"Error Code Table"
Y
Replace the parts in the order named.
1. Scanning optics unit
2. SCN12A
"Check, Replacement, and Adjustment Volume"
☞"8.1 Scanning Optics Unit"
☞"11.3 SCN12A Board"
FR6H2155.EPS